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Guidance for the Reregistration of Pesticide Products Containing Dalapon as the Active Ingredient

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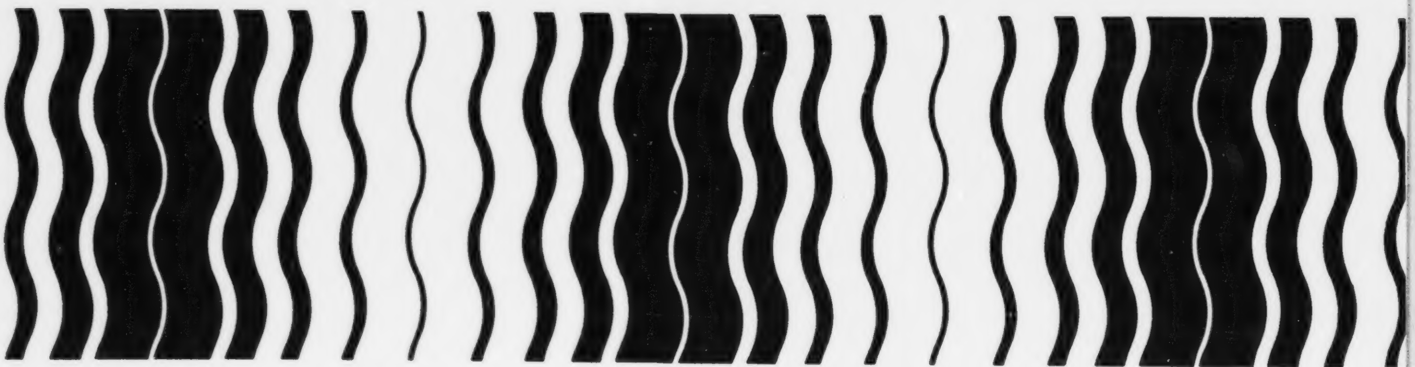
EPA

Guidance for the Reregistration of Pesticide Products Containing Dalapon as the Active Ingredient



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GUIDANCE FOR THE REREGISTRATION OF PESTICIDE PRODUCTS

CONTAINING

DALAPON

OPP No. 28901, 28902, 28903

CAS No. 75-99-0, 127-20-8

AS THE ACTIVE INGREDIENT

GS0274

JULY 1987

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF PESTICIDE PROGRAMS

WASHINGTON, D.C. 20460

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EPA Form 8570-27 - Generic (Formulator's) Exemption Statement

GLOSSARY OF TERMS AND ABBREVIATIONS

The following are terms used throughout Registration Standards and are defined here for the convenience of the reader.

ADI: (Acceptable Daily Intake) An acceptable daily intake of pesticide residue based on a complete data base.

A/D Ratio: This ratio determines a level of concern regarding whether effects observed in embryos and fetuses from treated females are "primary" (due to direct compoundrelated effects) or "secondary" (to maternal toxicity). Thus, the NOEL for maternal effects ("A" numerator) divided by the embryo/ fetal NOEL ("D" for "developmental"), including frank terata (gross congenital defects), defines this concern. If A/D is less than "1", developmental toxicity of a substance may be ascribed to secondary effects of maternal toxicity; if greater than 2, the substance is considered a direct (primary) developmental toxicant. Scientific interpretation is required in the range, 1 to 2 (LEL's may be used; or effects from other types of studies, e.g., reproduction).

ai: Active ingredient

CAS: Chemical Abstract Society (number)

Core Classification: A general guide to the acceptability of data for the purpose of supporting registration (invalid, supplementary, minimum, or guideline).

Core Guideline: Studies which satisfy Agency data requirements.

Core Minimum: Studies which are acceptable to support registration of pesticide products but were not necessarily done according to Agency guidelines.

Core Supplementary: Studies in this category are scientifically sound, thus the information may be useful. However, the studies were performed under conditions that deviated substantially from recommended protocols. Studies do not meet guideline requirements and thus do not support registration of a product.

EEC: (Estimated Environmental Concentration) Estimated pesticide concentration in the environment (terrestrial or aquatic ecosystem).

EP: End-use Product

EPA: The Environmental Protection Agency, also "the Agency"

FIFRA: The Federal Insecticide, Fungicide, and Rodenticide Act

HDT: Highest dose tested

Invalid: Studies which are deficient in some vital parameter or those studies which have been judged not to be scientifically sound or those studies whose reliability is seriously questioned.

LC_{50}: (median lethal concentration): a statistically derived concentration of a substance that can be expected to cause death in 50 percent of test animals, expressed as weight or volume of test substance per volume of air or water or per weight of feed (e.g., mg/L or ppm).

LD_{50}: (median lethal dose): a statistically derived single dose that can be expected to cause death in 50 percent of animals when administered by the route indicated, expressed as weight of substance per unit weight of test animal (e.g., mg/kg).

MOS: Margin of Safety - The calculation of a margin of safety involves division of an appropriate NOEL by a worker's estimated exposure. The result is a unitless figure which gives an indication of how close a worker's internal dose is in relation to the NOEL for laboratory animals.

MPI: Maximum Permissible Intake

MRID: Master Record Identification (number)--EPA's system of tracking studies used in support of registrations.

MP: Manufacturing-use product

NPDES: National Pollution Discharge Elimination System

NOEL: No Observed Effect Level--the maximum dose used in a test which produces no observed adverse effects.

OPP: The Office of Pesticide Programs (EPA)

OES: Office of Endangered Species, U.S. Fish and Wildlife Service

OM: Organic matter (used to describe soils)

ppm: Parts per million

PADI: (Provisional Acceptable Daily Intake) An acceptable daily intake of pesticide residue based on a limited data base.

PAI: Pure active ingredient

Technical: Active ingredient as manufactured

TMRC: (Theoretical Maximum Residue Contribution) An estimate of dietary exposure obtained by multiplying residue tolerance levels for a given pesticide by the average daily per capita food consumption figure, then adding the exposure figures for each crop. TMRC is usually expressed in terms of mg ai/day, assuming a 60 kg person.

I. INTRODUCTION

EPA has established the Registration Standards program in order to provide an orderly mechanism by which pesticide products containing the same active ingredient can be reviewed and standards set for compliance with FIFRA. The standards are applicable to reregistration and future applications for registration of products containing the same active ingredient. Each registrant of a product containing an active ingredient subject to this Standard who wishes to continue to sell or distribute that product must bring his product and labeling into compliance with FIFRA, as instructed by this Standard. Pesticides have been grouped into use clusters and will be reviewed on the basis of a ranking scheme giving higher priority to (1) pesticides in clusters used on food and feed crops; and (2) pesticides produced in large volumes.

The Registration Standards program involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA. In its review EPA identifies:

1. Studies that are acceptable to support the data requirements for the currently registered uses of the pesticide.

2. Additional studies necessary to support continued registration. The additional studies may not have been required when the product was initially registered or may be needed to replace studies that are now considered inadequate.

3. Labeling revisions needed to ensure that the product is not misbranded and that the labeling is adequate to protect man and the environment.

The detailed scientific review, which is not contained in this document, but is available upon request[1], focuses on the pesticide active ingredient. The scientific review primarily discusses the Agency's evaluation of and conclusions from available data in its files pertaining to the pesticide active ingredient. However, during the review of these data the Agency is also looking for potential hazards that may be associated with the end use products that contain the active ingredient. The Agency will apply the provisions of this Registration Standard to end use products if necessary to protect man and the environment.

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[1] The scientific reviews may be obtained from the Information Services Section, Program Management and Support Division (TS-757C), EPA, 401 M St., SW, Washington, D.C. 20460.

EPA's reassessment results in the development of a regulatory position, contained in this Registration Standard, on the pesticide and each of its registered uses. See Section IV - Regulatory Position and Rationale. Based on its regulatory position, the Agency may prescribe a variety of steps to be taken by registrants to maintain their registrations in compliance with FIFRA. These steps may include:

1. Submission of data in support of product registration;

2. Modification of product labels;

3. Modifications to the manufacturing process of the pesticide to reduce the levels of impurities or contaminants;

4. Restriction of the use of the pesticide to certified applicators or other specially trained individuals;

5. Modification of uses or formulation types; or

6. Specification of packaging limitations.

Failure to comply with these requirements may result in the issuance of a Notice of Intent to Cancel or a Notice of Intent to Suspend (in the case of failure to submit data).

In addition, in cases in which hazards to man or the environment are identified, the Agency may initiate a special review of the pesticide in accordance with 40 CFR Part 154 to examine in depth the risks and benefits of use of the pesticide. If the Agency determines that the risks of the pesticide's use outweigh the benefits of use, the Agency may propose additional regulatory actions, such as cancellation of uses of the pesticide which have been determined to cause unreasonable adverse effects on the environment.

EPA has authority under the Data Call-In (DCI) provisions of FIFRA sec. 3(c)(2)(B) to require that registrants submit data to answer our questions regarding the chemical, toxicological, and environmental characteristics and fate of a pesticide. This Registration Standard lists the data EPA believes are necessary to resolve our concerns about this pesticide. These data are listed in the Tables A, B, and C in Appendix I. Failure to comply with the DCI requirements enumerated in this Registration Standard may result in issuance by EPA of a Notice of Intent to Suspend the affected product registrations.

Registrants are reminded that FIFRA sec. 6(a)(2) requires them to submit factual information concerning possible unreasonable adverse effects of a pesticide at any time that they become aware of such information. Registrants should notify the Agency of any information, including interim or preliminary results of studies, if those results suggest possible adverse effects on man or the environment. This requirement continues as long as the products are registered by the Agency.

II. CHEMICALS COVERED BY THIS STANDARD

A. DESCRIPTION OF CHEMICALS

Dalapon (free acid) (D)
Chemical Name: 2,2-dichloropropionic acid
Empirical Formula: $C_3H_4Cl_2O_2$
Molecular Weight: 142.9
CAS Registry No.: 75-99-0
Shaughnessy No.: 28901

Dalapon Sodium Salt (SS)
Chemical Name: sodium 2,2-dichloropropionate
Empirical Formula: $C_3H_3Cl_2NaO_2$
Molecular Weight: 164.9
CAS Registry No.: 127-20-8
Shaughnessy No.: 28902

Dalapon Magnesium Salt (MS)
Chemical Name: magnesium 2,2-dichloropropionate
Empirical Formula: $C_6H_6Cl_4MgO_4$
Molecular Weight: 308.2
CAS Registry No.: N/A
Shaughnessy No.: 28903

Trade names: 2,2-dichloropropanoic acid, sodium and magnesium 2,2-dichloropropanoate, Basfapon, Basfapon B, Basfapon N, Dalapon 85, dalapon magnesium, Dalapon-Na, dalapon sodium, Ded-Weed, Devipon, Dowpon M, DM Dalapon, DPA (JMAF), Gramevin, magnesium dalapon, magnesium salt of dalapon, proprop, Radapon, Revenge, sodium dalapon, and sodium salt of dalapon.

B. USE PROFILE

Type of Pesticide: Herbicide

Pests Controlled: Bermudagrass, foxtails, Johnsongrass, quackgrass and other perennial and annual grasses, as well as cattails and rushes.

Registered uses: Terrestrial, food; terrestrial, nonfood; aquatic, food; aquatic, nonfood; and forestry.

Predominant uses: Primarily an industrial/noncrop herbicide (70 percent); agricultural use (30 percent) primarily on sugarcane and potatoes.

Mode of Activity: Interference of meristematic activity in root tips and apical meristems, reduction of wax formation on leaf surfaces and alteration of cell membranes.

Formulation Types Registered: Wettable powder, soluble concentrate/solid, impregnated material, granular and technical.

Methods of Application: Conventional aerial or ground equipment as fall or spring preplant, preemergence, or postemergence application, depending on the crop or site situation.

III. AGENCY ASSESSMENT

A. SUMMARY

Based on the review of available data, the Agency has reached the conclusions set forth in this Standard. A summary of those conclusions follows. A more detailed discussion is contained in the remainder of this Chapter.

1. Available data are insufficient to assess the toxicological effects of dalapon. While published registrant data indicate low toxicity, only one acceptable oncogenicity study is available and complete evaluation of this study is not possible without historical control data. This study did show an increased incidence of benign lung tumors.

2. There are no acceptable environmental fate studies. Preliminary data, however, do indicate there may be a potential for groundwater contamination. Additional data are required before the Agency can fully assess the potential for groundwater contamination.

3. There are insufficient data available to fully assess ecological effects from the use of dalapon. However, there is a threat to endangered plants based on the use pattern of dalapon. Endangered species labeling is required for forestry uses and is addressed in Pesticide Registration (PR) Notice 87-4, issued May 1, 1987.

As a result of this review, the Agency has identified missing data necessary to evaluate the environmental and human risks associated with the use of dalapon. These data must be developed in order to maintain registrations of products or register new products containing dalapon. A summary of these data gaps appears in Table 1. Please note that this is only a summary and complete details can be obtained by referring to the tables in Appendix I.

The Agency has also determined that, based on existing data, no unique label statements, other than endangered species labeling as discussed above, are necessary.

The Regulatory Position and Rationale section discusses the Agency's position regarding the regulation of dalapon.

TABLE 1

SUMMARY OF DATA GAPS FOR DALAPON

(Refer to Appendix A, Data Tables, for
detailed information and due dates.)

Product Chemistry - All

Residue Chemistry - Plant and animal metabolism
Residue studies

Toxicology - Acute toxicity
Subchronic (90-day feeding and 21-day dermal)
Chronic toxicity
Oncogenicity
Teratology
Reproduction
Mutagenicity
Metabolism

Ecological Effects - Avian oral and dietary toxicity
Freshwater fish and invertebrate toxicity
Aquatic organism accumulation

Environmental Fate - Hydrolysis
Photodegradation (water, soil)
Aerobic and anaerobic soil metabolism
Aerobic and anaerobic aquatic metabolism
Leaching and adsorption/desorption
Volatility (laboratory)
Degradation (soil, aquatic and forestry)
Rotational crops (confined)
Irrigated crops
Fish accumulation

B. TOXICOLOGICAL ASSESSMENT

While published registrant data indicate low toxicity, there are only four toxicological studies on dalapon available to the Agency. Of these, only one, an oncogenicity study, is acceptable; however, additional data regarding this study are required. All other toxicological studies are required. Therefore, full toxicological evaluation is not possible at this time.

In the acceptable oncogenicity study, mice were fed doses of 0, 2, 60 and 200 mg/kg/day (96, 60, 60 and 60 mice per respective dose per sex).

An increased incidence of benign lung tumors (adenomas) was observed in the treated males. Incidence of hyperplasia, benign tumors and malignant tumors in the lungs of males was reported as follows:

		Dose (ppm)			
		0	2	60	200
Lungs (no tissues examined)	#	86	50	50	50
Hyperplasia - adenomatous focal	#	3	3	2	1
	%	3	6	4	2
Mice with a benign primary lung tumor	#	7	10	10	9
	%	8	20	20	18
Mice with a malignant primary lung tumor	#	2	1	0	0
	%	2	2	0	0
Mice with any primary lung tumor	#	9	11	10	9
	%	10	22	20	18

The report stated that "A trend for benign lung tumors was identified in the male mice, but there was no significant difference in the incidence of total lung tumors when malignant tumors were included." However, graphical analysis of the data for benign lung tumors indicates that a "positive linear trend" is not present. Historical control data are needed to complete the evaluation of this study.

Additional data, primarily an oncogenic study in the rat, mutagenicity studies and a metabolism study, are needed for further evaluation of the oncogenic potential of dalapon.

In a teratology study, 25 pregnant rats were dosed at 0, 500, 1000 and 1500 mg/kg/day on days 6 through 15 of pregnancy. Maternal toxicity was observed (decreased weight gain) at all doses on day 15 of treatment, significantly at 500 and 1500 mg/kg/day. Fetal toxicity consisted of mean pup weights less than controls at all doses, significantly less at 1000 and 1500 mg/kg/day, and retarded ossification of sternebrae, hyoids and sacral arches associated with the decrease in mean pup weight. The report is lacking in individual animal information, maternal, fetal and litter data. NOELs were not determined for the maternal and fetal toxicity observed. Because of these deficiencies, the study has been classified as supplementary.

A one-year feeding study in the dog and a two-year feeding study in the rat are unacceptable. All toxicological studies are required except an oncogenicity study in the mouse. However, as discussed above, historical control data for the mouse oncogenicity study are required.

C. OTHER SCIENCE FINDINGS

Environmental Fate. There are no acceptable studies available to assess the environmental fate of dalapon. Data are required as set forth in Table A.

An aquatic field dissipation study provided the following supplementary information but it does not fulfill the data requirements for registration and must be repeated. In this study, dalapon was not diluted in canal water sampled <5 miles downstream from the sites at which dalapon was applied at 6.7-20 lb active ingredient (ai)/A to the canal bank. Maximum concentrations in water at the treatment sites ranged from 66-201 parts per billion (ppb), while maximum concentrations at sites 3-5 miles downstream ranged from 40-330 ppb. The highest concentrations of dalapon measured ranged from 23.4 ppb downstream from the 6.7 lb ai/A treatment to 365 ppb downstream from the 20 lb/A treatment. When dalapon was applied directly to the water surface at 100 ppb, the concentration of dalapon decreased by approximately 40 percent 9 miles downstream from the treatment site, but the volume of water affected by dalapon had increased by approximately 40 percent.

Groundwater Considerations. While dalapon has not been found in groundwater, it is very mobile in water. To characterize its potential to enter groundwater, the Agency issued a special data call-in notice in August 1984. Studies cited in response to that notice have been found to be inadequate to support registration of dalapon. These data do, however, indicate that there may be a potential for groundwater contamination because dalapon appears to be highly soluble in water, leach readily, and be moderately persistent. Further assessment of the potential for groundwater contamination will be conducted when additional data (e.g., adsorption/desorption, mobility, and degradation rates of parent and degradates) are available.

Ecological Effects. Available data are insufficient to completely evaluate the ecological effects of dalapon. Data, as set forth in Table A, are either required or reserved pending further evaluation. The following conclusions can be made based on available data:

1. Toxicity to Birds. There are insufficient data to evaluate the acute toxicity to birds. The only available data show that the dietary toxicity of dalapon sodium salt is greater than 5000 ppm for upland game birds and waterfowl.

2. Toxicity to Aquatic Organisms. There is sufficient information to characterize technical dalapon acid as practically nontoxic to warmwater fish and slightly toxic to invertebrates. The LC_{50} values were 105 ppm for bluegill, 11 ppm for *Daphnia pulex*, and 16 ppm for *Pteronarcys*. There are no coldwater fish or estuarine organism toxicity studies using dalapon acid. Therefore, the toxicity of dalapon acid to these organisms cannot be evaluated.

   There are no freshwater fish or estuarine organism toxicity studies for the sodium salt of dalapon. One study shows that, based on an LC_{50} value of 16 ppm for a species of daphnid, the sodium salt of dalapon (86.5 percent) is slightly toxic to freshwater invertebrates. There are no studies for the magnesium salt. The toxicity of this chemical to freshwater fish, freshwater invertebrates, and estuarine organisms cannot be evaluated. There is sufficient information to characterize the formulated product containing 72.5 percent sodium salt of dalapon and 12.0 percent magnesium salt of dalapon as practically nontoxic to fish. The LC_{50} values for rainbow and bluegill are greater than 180 ppm.

3. Hazard Assessment

   a. Effects on Terrestrial Organisms. The toxicity data for dalapon on avian species are not complete and, therefore, an accurate assessment of hazard to birds cannot be made. However, it appears from available data that there would be no immediate acute toxicity hazard to avian species from residues. In addition, based on use practices, there should not be a hazard from chronic exposure. There are insufficient data to assess potential for adverse effects to mammals.

   b. Effects on Aquatic Organisms. Dalapon appears to be practically nontoxic to fish and slightly toxic to invertebrates. Based on the acute toxicity data for dalapon, it appears that the potential hazard to endangered and non-endangered aquatic organisms from dalapon is rather low.

   c. Endangered Species. The effects on endangered species from the use of dalapon cannot be completely assessed at this time because of the lack of certain toxicity data. However, biological opinions from the Office of Endangered Species covering forest uses list several plant species in jeopardy from herbicides if used within or adjacent to the habitats of the listed species. Labeling to protect endangered plants is required for dalapon end-use products with foresty uses. This labeling is addressed in PR Notice 87-4, issued May 1, 1987.

Product Chemistry. The Agency has evaluated the available data which identify the ingredients, materials, and manufacturing process and discuss the physical and chemical properties of dalapon. Additional product chemistry data requirements, identified in the data tables, are required.

Pesticide Incident Monitoring System (PIMS). The Agency's PIMS files contain 22 incident reports involving dalapon, nine of which involved dalapon in combination with other ingredients. Twelve were related to agricultural use. Equipment failure occurred in four of the incidents. Fifteen of the incidents involved exposure to humans; while medical treatment was administered in 14 of these incidents, none required hospitalization.

D. TOLERANCE REASSESSMENT

Tolerances, expressed as dalapon per se, have been established for residues of dalapon in a variety of raw agricultural commodities, and meat byproducts (40 CFR 180.150(a)(b), and in processed food (21 CFR 193.105) and feed (21 CFR 561.110). EPA has evaluated the residue and toxicology data supporting tolerances. The following were considered during this evaluation:

° Whether the current tolerances and food additive regulations are sufficient to cover the actual residues resulting from use (including FIFRA section 24(c) and intrastate uses).

° Whether group tolerances can be established in accordance with 40 CFR 180.34(f).

° Whether, in the absence of tolerances, restrictions on use, grazing, or feeding of treated commodities are necessary.

° Whether the tolerances are expressed accurately and in current terminology.

The regulatory results of the Agency's review are set out in Section IV.A., Regulatory Positions and Rationales.

Residue Data. The residue data reviewed in support of these tolerances include the following:

1. Data on the nature of the residues in both plants and animals, including identification of major metabolites and degradates of dalapon. The metabolism is not completely understood.

2. Radiolabeled studies on the uptake, translocation and metabolism of dalapon in plants. These studies do not provide sufficient information regarding residues in plants. The available data do indicate that [^{14}C]dalapon is absorbed through the roots of hydroponically exposed corn and soybean plants and translocated to the shoots. [^{14}C]Dalapon is also absorbed to a limited extent by leaves of soybeans following direct foliar exposure and taken up from the soil and translocated to all aerial portions (especially vegetative and floral apices) of cotton plants.

3. Radiolabeled studies on the metabolism of dalapon in poultry and ruminants. Animal metabolism is not adequately understood.

4. Analytical methodology for determining the levels of residues of dalapon in plants and animals. Available methods are adequate only for collection of data pertaining to residues of dalapon on most plant and animal commodities and water.

5. Storage stability data. These data demonstrate that residues of dalapon in plant commodities are stable for up to 7 years when stored at room temperatures, refrigerated or frozen.

6. Data on the magnitude and levels of residues of dalapon in individual raw agricultural commodities, animal products, and processed food and feed items. Data are not adequate to support all of the established tolerances.

Toxicology Data. The toxicology data for dalapon are insufficient to determine an Acceptable Daily Intake (ADI). Prior to reevaluation of dalapon, an ADI of 0.08 mg/kg/day was considered appropriate based on a NOEL of 8 mg/kg/day from a 2-year rat study and an uncertainty factor of 100.

The rat study has since been determined to be unacceptable. However, until such time as data are available and an ADI can be established, the rat study will be used to determine a provisional ADI (PADI). Because of the study's deficiencies an additional 10 fold uncertainty factor was used to establish a PADI of 0.008 mg/kg/day. Comparing the percent of crop treated to the PADI results in a Theoretical Maximum Residue Contribution (TMRC) for the U.S. population of 0.00036 mg/kg/day. This TMRC occupies 4.5 percent of the PADI.

Tolerances Issued. Currently, tolerances for dalapon are set forth in 40 CFR 180.150(a)(b) and in 21 CFR 193.105 and 561.110. There are several Canadian tolerances established for residues of dalapon. There are no Mexican tolerances or Codex Alimentarius tolerances.

IV. REGULATORY POSITION AND RATIONALE

A. REGULATORY POSITIONS AND RATIONALES

Based on the review and evaluation of all available data on dalapon, the Agency has made the following determinations. Where label revisions are imposed, specific language is set forth in Section D of this Chapter.

1. The Agency will not place dalapon in special review.

   Rationale: Based on the data available to the Agency, dalapon has not met or exceeded any of the risk criteria specified in 40 CFR 154.7 for special review.

2. The Agency will not consider establishment of new food use tolerances for dalapon.

   Rationale: The current residue chemistry and toxicology data are not sufficient to assess existing and pending tolerances. In addition, the toxicology data base is insufficient to determine an ADI. Given the limited data available, the Agency will not consider any new uses until data are available to resolve these issues.

3. The Agency is requiring supporting data for existing tolerances for residues of dalapon in or on potatoes, sugar beet tops, bean straw, plums (fresh prunes), cranberries, grapes, Macadamia nuts, pecans, pasture and rangeland grass, asparagus, bananas, and flaxseed. In addition, the Agency is requiring processing studies for the following commodities: potatoes, sugar beets, soybeans, oranges, apples, plums, grapes, corn, sorghum grain, coffee beans, cottonseed, flaxseed, pineapples, and sugarcane.

   Rationale: Existing data are insufficient to support these established tolerances.

4. The Agency is requiring that the obsolete crop groupings in 40 CFR 180.150(b) be revoked and a single tolerance of 2.0 ppm for residues of dalapon *per se* in all of the crops listed in the new crop groupings and individual crops be established as a result of irrigation using water containing up to 0.5 ppm of dalapon.

   Rationale: Available data indicate that a tolerance of 2.0 ppm in these crops is appropriate for residues of dalapon, including residues resulting from use on irrigation ditch banks. Should additional degradates/metabolites of concern be observed in water additional residue data and possible higher tolerance level proposals may be required.

5. The Agency will establish crop group tolerances of 3 ppm and 5 ppm for residues in or on members of the Pome Fruits and Citrus Fruits Groups, respectively, if requested by registrants.

   Rationale: Available residue data are adequate to support such group tolerances and the uses and tolerances are significantly similar as required by 40 CFR 180.34(f).

6. The Agency will revoke the food additive regulation of 0.2 ppm for residues of dalapon in potable water and will establish an acceptable residue level (ARL).

   Rationale: The Agency no longer establishes tolerances for pesticides in potable water but rather sets acceptable residue levels in drinking water.

7. The Agency will propose the following technical changes in the listing of dalapon tolerances: (i) the commodity entries "peas shelled" and "peas unshelled" will be amended to "peas"; (ii) the commodity entries "pea vines with pods" and "pea vines without pods" will be amended to "pea vines"; (iii) the commodity entry "bean straw" will be amended to "bean hay"; and (iv) the commodity entry "dried corn ear (kernel plus cob)" will be deleted.

   Rationale: These technical changes are required because "peas," "pea vines" and "bean hay" are the appropriate commodity definitions, and "corn grain" is the inclusive and appropriate commodity definition making "dried corn ear (kernel plus cob)" unnecessary.

8. Tolerance proposals, accompanied by residue data, or feeding and grazing restrictions must be proposed for cotton forage, pineapple forage, and sugarcane forage.

   Rationale: Tolerances have not been proposed or established for these commodities in which residues of dalapon could occur. The registrant(s) must propose tolerances and provide appropriate supporting data, or establish feeding restrictions, in lieu of proposing tolerances. The registrant(s) must inform the Agency within 90 days which option is selected.

9. A tolerance must be proposed, and supporting data submitted, for birdsfoot trefoil, or this use must be removed from the label. Registrants have 6 months to notify the Agency of which option they choose.

   Rationale: Heretofore, the registered use on birdsfoot trefoil has been considered a non-food use not requiring a tolerance. Such classification is no longer considered practical since multiple cuttings of forage or hay can occur which might be directed to animal feed.

10. A tolerance must be proposed, and supporting data submitted, for taro, or this use must be removed from the label. Registrants have 6 months to notify the Agency of which option they choose.

    Rationale: The use of dalapon on taro is permitted under a State local needs (SLN) registration. A tolerance has not been proposed or established for this commodity in which residues of dalapon could occur.

11. The Agency will evaluate the potential of dalapon to contaminate groundwater after receiving and evaluating additional required environmental fate data.

    Rationale: Dalapon was identified as a chemical with the potential to contaminate groundwater and a data call-in notice was issued. Results of studies received as a result of that notice were inconclusive, however, they demonstrate that dalapon is highly soluble in water, leaches readily and is moderately persistent. Additional data are required to fully assess the potential of dalapon to contaminate groundwater.

12. The Agency is requiring endangered species labeling for dalapon end-use products with registered forestry uses.

    Rationale: Available data indicate that certain endangered plants could be at risk from an acute exposure to dalapon resulting from its forestry uses. Endangered species labeling for these uses is addressed in PR Notice 87-4.

13. While data gaps are being filled, currently registered manufacturing-use products (MP's) and end-use products (EP's) containing dalapon as the sole active ingredient may be sold, distributed, formulated, and used, subject to the terms and conditions specified in this Standard. However, significant new uses will not be registered. Registrants must provide or agree to develop additional data, as specified in the Data Appendices, in order to maintain existing registrations.

    Rationale: Under FIFRA, the Agency may elect not to cancel or withhold registration even though data are missing or are inadequate (see FIFRA section 3(c)(2)(B) and 3(c)(7)). Issuance of this Standard provides a mechanism for identifying data needs. These data will be reviewed and evaluated, after which the Agency will determine if additional regulatory changes are necessary. Because of the quantity of data required to maintain existing registrations, the Agency has elected not to consider registration of any significant new uses while data gaps are being filled and data evaluated.

B. CRITERIA FOR REGISTRATION

To be registered or reregistered under this Standard, products must contain dalapon as the sole active ingredient, bear required labeling, and conform to the product composition, acute toxicity limits, and use pattern requirements listed in this section.

C. ACCEPTABLE RANGES AND LIMITS

Product Composition Standard - To be registered or reregistered under this Standard, MP's must contain dalapon as the sole active ingredient. Each MP formulation proposed for registration must be fully described with an appropriate certification of limits, stating maximum and minimum amounts of the active ingredient and inert ingredients which are present in products, as well as impurities found at greater than 0.1 percent.

Acute Toxicity Limits - The Agency will consider registration of technical grade and manufacturing-use products containing dalapon provided that the product labeling bears appropriate precautionary statements for the acute toxicity category in which each product is placed.

Use Patterns - To be registered under this Standard, manufacturing-use products must be labeled for formulation into end-use products for registered uses, as listed in the Use Index, Appendix III.

D. LABELING

All dalapon products must bear appropriate labeling as specified in 40 CFR 162.10. Appendix II contains information on label requirements.

No pesticide product containing dalapon may be released for shipment by the registrant after September 1, 1988, unless the product bears an amended label which complies with the requirements of this Standard. In addition, no pesticide product containing dalapon may be released for shipment by the registrant after February 1, 1988, unless the product complies with the requirements of PR Notice 87-4, dated May 1, 1987.

No pesticide product containing dalapon may be distributed, sold, offered for sale, held for sale, shipped, delivered for shipment, or received and (having been so received) delivered or offered to be delivered by any person after September 1, 1989, unless the product bears an amended label which complies with the requirements of this Standard. In addition, no pesticide product containing dalapon may be distributed, sold, offered for sale, held for sale, shipped, delivered for shipment, or received and (having been so received) delivered or offered to be delivered by any person after February 1, 1989, unless the product complies with the requirements of PR Notice 87-4, dated May 1, 1987.

In addition to the above, in order to remain in compliance with FIFRA, the following information must appear on the labeling:

Ingredient Statement. The ingredient statement for MP's must list the active ingredient as:

Dalapon, 2,2-dichloropropionic acid . . . . %

- or -

Dalapon sodium salt, sodium 2,2-dichloropropionate . . . . . . %

- or -

Dalapon magnesium salt, magnesium 2,2-dichloropropionate . . . %

Use Pattern Statements. All manufacturing-use products must state that they are intended for formulation into end-use products for acceptable use patterns. However, no use may be included on the label where the registrant fails to agree to comply with the data requirements in Table A for that use pattern.

Disposal Statements. Because dalapon has not been designated as an acute or toxic hazardous waste under the Resource Conservation and Recovery Act (RCRA), the following is the appropriate pesticide disposal statement for dalapon products:

> "Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

The labels of all products must bear the appropriate container disposal statement (See Appendix II).

End-Use Products (Forestry Uses). All end-use products with forest uses must bear endangered species labeling as specified in PR Notice 87-4 dated May 1, 1987. Time frames for compliance with these labeling requirements are different from time frames specified in this Registration Standard for other labeling requirements (see above discussion of time frames).

V. PRODUCTS SUBJECT TO THIS STANDARD

All products containing one or more of the pesticides identified in Section II.A. are subject to certain requirements for data submission or changes in composition, labeling or packaging of the product. The applicable requirements depend on whether the product is a manufacturing or end use product and whether the pesticide is the sole active ingredient or one of multiple active ingredients.

Products are subject to this Registration Standard as follows:

A. Manufacturing use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV, if they pertain to the manufacturing use product.
2. The data requirements listed in Tables A and B[2]
3. The labeling requirements specified for manufacturing use products in Section IV.
4. Administrative requirements (application forms, Confidential Statement of Formula, data compensation provisions) associated with reregistration.

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[2] Data requirements are listed in the three Tables in Appendix I of this Registration Standard. The Guide to Tables in that Appendix explains how to read the Tables.

Table A lists generic data requirements applicable to all products containing the pesticide subject to this Registration Standard. Table B lists product-specific data applicable to manufacturing use products. The data in Tables A and B need not be submitted by a producer who is eligible for the formulator's exemption for that active ingredient.

Table C lists product-specific data applicable to end use products. The Agency has decided that, in most cases, it will not require the submission of product-specific data for end use products at this time. Therefore, most Registration Standards do not contain a Table C.

B. Manufacturing use products containing this pesticide as one of multiple active ingredients are subject to:

The data requirements listed in Table A.

C. End use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV if they pertain to the end use product.

2. If eligible for the formulator's exemption[3], the data requirements listed in Table C.

3. If not eligible for the formulator's exemption, the data requirements listed in Table A and the data requirements listed in Table C.

4. The labeling requirements specified for end use products in Section IV.

D. End use products containing this pesticide as one of multiple active ingredients are subject to:

a. If not eligible for the formulator's exemption, the data requirements listed in Tables A and C.

b. If eligible for the formulator's exemption, the data requirements listed in Table C.

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[3] If you purchase from another producer and use as the source of your active ingredient only EPA-registered products, you are eligible for the formulator's exemption for generic data concerning that active ingredient (Table A) and product-specific data for the registered manufacturing use product you purchase (Table B).

Two circumstances nullify this exemption:

1) If you change sources of active ingredient to an unregistered product, formulate your own active ingredient, or acquire your active ingredient from a firm with ownership in common with yours, you individually lose the exemption and become subject to the data requirements in Table A.

2) If no producer subject to the generic data requirements in Table A agrees to submit the required data, all end use producers lose the exemption, and become subject to those data requirements.

VI. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

This portion of the Registration Standard is a notice issued under the authority of FIFRA sec. 3(c)(2)(B). It refers to the data listed in Table A, which are required to be submitted by registrants to maintain in effect the registration of products containing this active ingredient.[4]

A. What are generic data?

Generic data pertain to the properties or effects of a particular active ingredient. Such data are relevant to an evaluation of all products containing that active ingredient regardless of whether the product contains other ingredients (unless the product bears labeling that would make the data requirement inapplicable).

Generic data may also be data on a "typical formulation" of a product. "Typical formulation" testing is often required for ecological effects studies and applies to all products having that formulation type. These are classed as generic data, and are contained in Table A.

B. Who must submit generic data?

All current registrants are responsible for submitting generic data in response to a data request under FIFRA sec. 3(c)(2)(B) (DCI Notice). EPA has decided, however, not to require a registrant who qualifies for the formulator's exemption (FIFRA sec. 3(c)(2)(D) and § 152.85) to submit generic data in response to a DCI notice if the registrant who supplies the active ingredient in his product is complying with the data request.

If you are granted a generic data exemption, you rely on the efforts of other persons to provide the Agency with the required data. If the registrants who have committed to generate and submit the required data fail to take appropriate steps to meet the requirements or are no longer in compliance with this data requirements notice, the Agency will consider that both they and you are not in compliance and will normally initiate proceedings to suspend the registrations of both your product(s) and their product(s) unless you commit to submit and submit the required data in the specified timeframe. In such cases, the Agency generally will not grant a time extension for submitting the data.

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[4] Registrations granted after issuance of this Standard will be conditioned upon submission or citation of the data listed in this Registration Standard.

If you are not now eligible for a formulator's exemption, you may qualify for one if you change your source of supply to a registered source that does not share ownership in common with your firm. If you choose to change sources of supply, the Confidential Statement of Formula must identify the new source(s) and you must submit a Formulator's Exemption Statement form.

If you apply for a new registration for products containing this active ingredient after the issuance of this Registration Standard, you will be required to submit or cite generic data relevant to the uses of your product if, at the time the application is submitted, the data have been submitted to the Agency by current registrants. If the required data have not yet been submitted, any new registration will be conditioned upon the new registrant's submission or citation of the required data not later than the date upon which current registrants of similar products are required to provide such data. See FIFRA sec. 3(c)(7)(A). If you thereafter fail to comply with the condition of that registration to provide data, the registration may be cancelled (FIFRA sec. 6(e)).

C. What generic data must be submitted?

You may determine which generic data you must submit by consulting Table A. That table lists the generic data needed to evaluate current uses of all products containing this active ingredient, the uses for which such data are required, and the dates by which the data must be submitted to the Agency.

D. How to comply with DCI requirements.

Within 90 days of your receipt of this Registration Standard, you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1, enclosed) for each of your products. On that form you must state which of the following six methods you will use to comply with the DCI requirements:

1. You will submit the data yourself.

2. You have entered into an agreement with one or more registrants to jointly develop (or share in the cost of developing) the data, but will not be submitting the data yourself. If you use this method, you must state who will submit the data on which you will rely. You must also provide EPA with documentary evidence that an agreement has been formed which allows you to rely upon the data to be submitted. Such evidence may be: (1) your letter offering to join in an agreement and the other registrant's acceptance of your

offer, (2) a written statement by the parties that an agreement exists, or (3) a written statement by the person who will be submitting the data that you may rely upon its submission. The Agency will also require adequate assurance that the person whom you state will provide the data is taking appropriate steps to secure it. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or a mechanism to resolve the terms.

If you and other registrants together are generating or submitting requested data as a task force or consortium, a representative of the group should request a Joint Data Submitter Number from the Registration Support and Emergency Response Branch, Registration Division. The request must include the following information:

a. A list of the members of the consortium;
b. The name and address of the designated representative of the consortium, with whom EPA will correspond concerning the data;
c. Identity of the Registration Standard containing the data requirement;
d. A list of the products affected (from all members of the consortium); and
e. Identification of the specific data that the consortium will be generating or submitting.

The Agency will assign a number to the consortium, which should be used on all data submissions by the consortium.

3. You have attempted to enter into an agreement to jointly develop data, but no other registrant has accepted your offer. You request that EPA not suspend your registration for non-compliance with the DCI. EPA has determined that, as a general policy, it will not suspend the registration of a product when the registrant has in good faith sought and continues to seek to enter into a data development/cost sharing program, but the other registrants developing the data have refused to accept its offer. [If your offer is accepted, you may qualify for Option 2 above by entering into an agreement to supply the data.]

In order to qualify for this method, you must:

1. File with EPA a completed "Certification of Attempt to Enter into an Agreement with other Registrants for Development of Data" (EPA Form 8580-6, enclosed).

2. Provide us with a copy of your offer to the other registrant and proof of the other registrant's receipt of your offer (such as a certified mail receipt). Your offer must, at a minimum, contain the following language or its equivalent:

> [Your company name] offers to share in the burden of producing the data required pursuant to FIFRA section 3(c)(2)(B) in the [name of active ingredient] Registration Standard upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii).

The remainder of your offer may not in any way attempt to limit this commitment. If the other registrant to whom your offer is made does not accept your offer, and if the other registrant informs us on a DCI Summary Sheet that he will develop and submit the data required under the DCI, then you may qualify for this option. In order for you to avoid suspension under this method, you may not later withdraw or limit your offer to share in the burden of developing the data.

In addition, the other registrant must fulfill its commitment to develop and submit the data as required by this Notice in a timely manner. If the other registrant fails to develop the data or for some other reason would be subject to suspension, your registration as well as that of the other registrant will normally be subject to initiation of suspension proceedings, unless you commit to submit and submit the required data in the specified timeframe. In such cases, the Agency generally will not grant a time extension for submitting the data.

4. You request a waiver of the data requirement. If you believe that a data requirement does not (or should not) apply to your product or its uses, you must provide EPA with a statement of the reasons why you believe this is so. Your statement must address the specific composition or use factors that lead you to believe that a requirement does not apply. Since the Agency has carefully considered the composition and uses of pesticide products in determining that a data requirement applies, EPA does not anticipate that many waivers will be granted. A request for waiver does not extend the timeframes for developing required data, and if your waiver request is denied, your registration may be suspended if you fail to submit the data.

5. You request that EPA amend your registration by deleting the uses for which the data are needed. You are not required to submit data for uses which are no longer on your label.

6. You request voluntary cancellation of the registration of your product(s) for which the data are needed.

E. Testing Protocols, Standards for Conducting Acceptable Tests, Guidance on Evaluating and Reporting Data.

All studies required under this Notice must be conducted in accordance with test standards outlined in the Pesticide Assessment Guidelines, unless other protocol or standards are approved for use by the Agency in writing.

As noted herein, these EPA Guidelines, which are referenced in the Data Tables, are available from the National Technical Information Service (NTIS), Attn: Order Desk, 5285 Port Royal Road, Springfield, VA 22161 (tel: 703-487-4650).

Protocols approved by the Organization for Economic Cooperation and Development (OECD) are also acceptable if the OECD-recommended test standards conform to those specified in the Pesticide Data Requirements regulation (Part 158.70). Please note, however, that certain OECD standards (such as test duration, selection of test species, and degradate identification which are environmental fate requirements) are less restrictive than those in the EPA Assessment Guidelines listed above. When using the OECD protocols, they should be be modified as appropriate so that the data generated by the study will satisfy the requirements of Part 158. Normally, the Agency will not extend deadlines for complying with data requirements when the studies were not conducted in accord with acceptable standards. The OECD protocols are available from OECD, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20006.

F. Procedures for requesting a change in testing protocol.

If you will generate the required data and plan to use test procedures which deviate from EPA's Pesticide Assessment Guidelines or the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit for EPA approval the protocols you propose to use.

You should submit your protocols before beginning testing, because the Agency will not ordinarily accept as sufficient studies using unapproved protocols. A request for protocol approval will not extend the timeframe for submission of the data, nor will extensions generally be given to conduct studies due to submittal of inappropriate protocols.

G. Procedures for requesting extensions of time.

If you think that you will need more time to generate the data than is allowed by EPA's schedule, you may submit a request for an extension of time. Any request for a time extension which is made as an initial response to a section 3(c)(2)(B) request notice must be submitted in writing to the Product Manager listed at the end of this section and must be made by the 90-day deadline for response. Once dates have been committed to and EPA has accepted these commitments, any subsequent requests for a time extension must be submitted in writing to the Office of Compliance Monitoring at the address given in Section IX.E.

EPA will view failure to request an extension before the data submission response deadline as a waiver of any future claim that there was insufficient time to submit the data. While EPA considers your request, you must strive to meet the deadline for submitting the data.

The extension request should state the reasons why you believe that an extension is necessary and the steps you have taken to meet the testing deadline. Time extensions normally will not be granted due to problems with laboratory capacity or adequacy of funding, since the Agency believes that with proper planning these can be overcome.

A request for an extension does not extend the timeframe for submission of the data. If EPA denies your request for a time extension and you do not submit the data as requested, EPA may begin proceedings to suspend the registrations of your products.

H. PR Notice 86-5 and Any Other Requirements Referenced or Included Within this Notice.

All data submitted in response to this Notice must comply with EPA requirements regarding the reporting of data, including the manner of reporting, the completeness of results, and the adequacy of any required supporting (or raw) data, including, but not limited to, requirements referenced or included in this Notice or contained in PR Notice 86-5 (issued July 29, 1986).

I. Existing stocks provision upon suspension or cancellation.

The Agency has determined that if a registration is suspended for failure to respond to a DCI request under FIFRA sec. 3(c)(2)(B), an existing stocks provision is not consistent with the Act. Accordingly, the Agency does not anticipate granting permission to sell or distribute existing stocks of suspended product except in rare circumstances. If you believe that your product will be suspended or cancelled and that an existing stocks provision should be granted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. The following information must be included in any request for an existing stocks provision:

1. Explanation of why an existing stocks provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale or distribution; and

2. Demonstration that such a provision would be consistent with the provisions of FIFRA.

VII. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Under its DCI authority, EPA has determined that certain product-specific data are required to maintain your registrations in effect. Product-specific data are derived from testing using a specific formulated product, and, unlike generic data, generally support only the registration of that product. All such data must be submitted by the dates specified in this Registration Standard.

If you have a manufacturing use product, these data are listed in Table B. If you have an end use product, the data are listed in Table C. As noted earlier, the Agency has decided that it will not routinely require product-specific data for end use products at this time. Therefore, Table C may not be contained in this Registration Standard; if there is no Table C, you are not required to submit the data at this time.

In order to comply with the product specific data requirements, you must follow the same procedures as for generic data. See Section IV.D, E, F, and G. You should note, however, that product chemistry data are required for every product, and the only acceptable responses are options IV.D.1. (submit data) or IV.D.6.(cancellation of registration).

Failure to comply with the product-specific data requirements for your products will result in suspension of the product's registration.

VIII. REQUIREMENT FOR SUBMISSION OF REVISED LABELING

FIFRA requires each product to be labeled with accurate, complete and sufficient instructions and precautions, reflecting the Agency's assessment of the data supporting the product and its uses. General labeling requirements are set out in 40 CFR 162.10 (see Appendix II - LABELING and SUMMARY). In addition, labeling requirements specific to products containing this pesticide are specified in Section IV.D of this Registration Standard. Applications submitted in response to this notice must include draft labeling for Agency review.

If you fail to submit revised labeling as required, which complies with 40 CFR 162.10 and the specific instructions in Section IV.D., EPA may seek to cancel or suspend the registration of your product under FIFRA sec. 6.

IX. INSTRUCTIONS FOR SUBMISSION

A. Manufacturing Use Products (MUPs) containing the subject pesticide as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division for each product subject to this Registration Standard:

a. The "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1), with appropriate attachments.[5]

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

d. Evidence of compliance with data compensation requirements of FIFRA sec. 3(c)(1)(D). Refer to 40 CFR 152.80-152.99.

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Application for Pesticide Registration (EPA Form 8570-1).

b. Two copies of any required product-specific data (See Table B).

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft label must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text.

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[5] If on the Summary Sheet, you commit to develop the data, present arguments that a data requirement is not applicable or should be waived, or submit protocols or modified protocols for Agency review, you must submit a copy of the Summary Sheet (and any supporting information) to the Office of Compliance Monitoring, which will be monitoring the data generated in response to this notice. This submission is in addition to responding to the Product Manager, and should be submitted to the Office of Compliance Monitoring at the address given at the end of this section. (Actual studies are not to be submitted to the Office of Compliance Monitoring.)

d. Product Specific Data Report (EPA Form 8580-4).

3. Within the times set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

B. Manufacturing Use Products containing the subject pesticide in combination with other active ingredients.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA sec. 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4)

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within the time frames set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

C. End Use Products containing the subject pesticide as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA Section 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Two copies of any product-specific data, if required by Table C.

b. Product Specific Data Report (EPA Form 8580-4), if Table C lists required product-specific data.

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft labeling must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text. End use product labeling must comply specifically with the instructions in Section IV (Regulatory Position and Rationale).

D. Intrastate Products containing the subject pesticide either as sole active ingredient or in combination with other active ingredients.

These products are being called in for full Federal registration. Producers of these products are being sent a letter instructing them how to submit an application for registration.

E. Addresses

The required information must be submitted to the following address:

Robert J. Taylor (PM 25)
Registration Division (TS-767C)
Office of Pesticide Programs
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460

The address for submissions to the Office of Compliance Monitoring is:

Laboratory Data Integrity Program
Office of Compliance Monitoring (EN-342)
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460.

APPENDIX I

DATA TABLES

GUIDE TO TABLES

Tables A, B, and C contain listings of data requirements for the pesticides covered by this Registration Standard.

> Table A contains generic data requirements that apply to the pesticide in all products, including data requirements for which a "typical formulation" is the test substance.
>
> Table B contains product-specific data requirements that apply only to a manufacturing use product.
>
> Table C contains product-specific data requirements that apply only to an end use product.

The data tables are generally organized according to the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. The reference numbers accompanying each test refer to the test protocols set out in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

2. Test Substance (Column 2). This column lists the composition of the test substance required to be used for the test, as follows:

TGAI = Technical grade of the active ingredient
PAI = Pure active ingredient
PAIRA = Pure active ingredient, radio labeled
TEP = Typical end use formulation
MP = Manufacturing use product
EP = End use product

Any other test substances, such as metabolites, will be specifically named in Column 2 or in footnotes to the table.

3. Use pattern (Column 3). This column indicates the use patterns to which the data requirement applies. Use patterns are the same as those given in 40 CFR Part 158. The following letter designations are used for the given use patterns:

A = Terrestrial, food
B = Terrestrial, non-food
C = Aquatic, food
D = Aquatic, non-food
E = Greenhouse, food
F = Greenhouse, non-food
G = Forestry
H = Domestic outdoor
I = Indoor

Any other designations will be defined in a footnote to the table.

4. Does EPA have data? (Column 4). This column indicates one of three answers:

> YES - EPA has data in its files that satisfy this data requirement. These data may be cited by other registrants in accordance with data compensation requirements of Part 152, Subpart E.
>
> PARTIALLY - EPA has some data in its files, but such data do not fully satisfy the data requirement. In some cases, the Agency may possess data on one of two required species, or may possess data on one test substance but not all. The term may also indicate that the data available to EPA are incomplete. In this case, when the data are clarified, or additional details of the testing submitted by the original data submitter, the data may be determined to be acceptable. If this is the case, a footnote to the table will usually say so.
>
> NO - EPA either possesses no data which are sufficient to fulfill the data requirement, or the data which EPA does possess are flawed scientifically in a manner that cannot be remedied by clarification or additional information.

5. Bibliographic citation (Column 5). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a GS number if no MRID number has been assigned. Refer to the Bibliography Appendices for a complete citation of the study.

6. Must additional data be submitted? (Column 6). This column indicates whether the data must be submitted to the Agency. If column 3 indicates that the Agency already has data, this column will usually indicate NO. If column 3 indicates that the Agency has only partial data or no data, this column will usually indicate YES. In some cases, even though the Agency does not have the data, EPA will not require its submission because of the unique characteristics of the chemical; because data on another chemical can be used to fulfill the data requirement; or because the data requirement has been waived or reserved. Any such unusual situations will be explained in a footnote to the table.

7. Timeframe for submission (Column 7). If column 5 requires that data be submitted, this column indicates when the data are to be submitted, based on the issuance date of the Registration Standard. The timeframes are those established either as a result of a previous Data Call-In letter, or standardized timeframes established by PR Notice 85-5 (August 22, 1985).

8. Footnotes (at the end of each table). Self-explanatory.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON[1]

Data Requirement	Composition	Does EPA Have Data to Satisfy This Requirement?[2]	Bibliographic Citation[2]	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry Product Identity and Composition:					
61-1 - Product Identity and Disclosure of Ingredients	TGAI	NA	NA	Yes[3]	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	TGAI	NA	NA	Yes[4]	6 Months
61-3 - Discussion of Formation of Impurities	TGAI	NA	NA	Yes[5]	6 Months
Analysis of Product Ingredients					
62-1 - Preliminary Analysis of Product Samples	TGAI	NA	NA	Yes[6]	12 Months
62-2 - Certification of Ingredient Limits	TGAI	NA	NA	Yes[7]	12 Months
62-3 - Analytical Methods to Verify Certified Limits	TGAI	NA	NA	Yes[8]	12 Months
Physical and Chemical Characteristics					
63-2 - Color	TGAI	NA	NA	Yes[9]	6 Months
63-3 - Physical State	TGAI	NA	NA	Yes[9]	6 Months
63-4 - Odor	TGAI	NA	NA	Yes[9]	6 Months
63-5 - Melting Point	TGAI	NA	NA	Yes[9]	6 Months
63-6 - Boiling Point	TGAI	NA	NA	No [10]	-
63-7 - Density, Bulk Density, or Specific Gravity	TGAI	NA	NA	Yes[9]	6 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON 1/

Data Requirement	Composition	Does EPA Have Data to Satisfy This Requirement?2/	Bibliographic Citation2/	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry (continued)					
63-8 - Solubility	TGAI or PAI	NA	NA	Yes9/	6 Months
63-9 - Vapor Pressure	TGAI or PAI	NA	NA	Yes9/	6 Months
63-10 - Dissociation Constant	TGAI or PAI	NA	NA	Yes9/	6 Months
63-11 - Octanol/Water Partition Coefficient	PAI	NA	NA	Yes9/	6 Months
63-12 - pH	TGAI	NA	NA	Yes9/	6 Months
63-13 - Stability	TGAI	NA	NA	Yes9/	6 Months
Other Requirements:					
64-1 - Submittal of samples	N/A	NA	NA		

1/ Data must be submitted individually for registered and unregistered technical materials for the free acid, magnesium salt and sodium salt.

2/ Although product chemistry data may have been submitted in the past, the Agency has determined that these data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated. Therefore, bibliographic citations for the old data are not applicable.

3/ The nominal concentration for each active ingredient, and the name of each impurity for which a certified limit is required, must be submitted.

4/ Complete details of the manufacturing process, including a description of the equipment used to produce the product, reaction conditions, the duration of each step of the process, and purification procedures and quality control measures must be provided. Complete information must be provided regarding the nature of the process (batch or continuous), the relative amounts of beginning materials and the order in which they are added, and a flow chart with chemical equations for each intended reaction must be provided. In addition, the name and address of the manufacturer, producer, or supplier of each beginning material must be provided along with information regarding the properties of each beginning material.

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GENERIC DATA REQUIREMENTS FOR DALAPON[1]

5/ A detailed discussion of all impurities that are or may be present at ≥0.1%, based on knowledge of the beginning materials, chemical reactions (intended and side) in the manufacturing process, and any contamination during and after production must be submitted.

6/ Five or more representative samples must be analyzed for the active ingredient and each impurity present at ≥0.1% (w/w). Complete validation data (accuracy, precision) must be submitted for each analytical method used.

7/ For each registered technical, upper and lower limits for dalapon, and upper limits for each impurity present at ≥0.1% (w/w), and for each "toxicologically significant" impurity present at <0.1% (w/w) must be provided, certified, and validated by sample analysis using analytical procedures for which accuracy and precision data have been provided. Certifications must be submitted on EPA Form 8570 Rev. 2-85.

8/ For each registered technical, analytical methods to determine the active ingredient and each toxicologically significant impurity for which a certified limit is required must be submitted. Each method must be accompanied by validation studies indicating its accuracy and precision, so as to be suitable for enforcement of certified limits.

9/ All physicochemical characteristics of the T (i.e., color, physical state, odor, melting point, specific gravity, solubility, vapor pressure, pH, and stability) or each pure active ingredient (Kow), as required in 49 FR 42890 (Sec. 158.120) and more fully described in the Pesticide Assessment Guidelines, Subdivision D, must be submitted.

10/ Not required for purposes of this document.

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
§158.125 Residue Chemistry					
171-4 - Nature of the residue (Metabolism)					
- Plants	PAIRA	Partially	00072132 00114915 00114808	Yes1/,2/	18 Months3/
- Livestock	PAIRA	Partially	00114811	Yes4/,5/ Reserved6/	18 Months
171-4 - Residue analytical methods					
- Plant and animal residues	TGAI & Metabolites	Partially	00031171 00108948 00033758 00114803 00035252 00114804 00035927 00114808 00042781 00114811 00072134 00114812 00072139 00114911 00083177 00114913 00083234 00114916 00088356 00125105 00089349 00125549 00089350 00125552 00089351 00127213 00089352 00114815 00089353 00114820 00089361 00114825 00090120 00114842 00090141 00114895 00108929 00114896	Yes7/,8/	15 Months

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Storage stability data	TEP & Metabolites	Partially	00114825 00114911	Yes[9]/, [10]/	18 Months
171-4 - Magnitude of the Residue					
- Root and Tuber Vegetables Group[11]/					
o Potatoes	EP and TEP	Partially	00108929 00114913	Yes[12]/, [13]/	18 Months[3]/
o Sugar beets	TEP	Partially	00042781 00114896	Yes[14]/	18 Months[3]/
- Leaves of Root and Tuber Vegetables Group[15]/					
o Sugar beet tops	EP	Partially	00042781 00114896	Yes[16]/	18 Months[3]/
- Legume Vegetables Group					
o Beans		Yes	00072139	No	
o Peas		Yes	00089361	No	
o Soybeans	TEP	Partially	00072134	Yes[17]/	18 Months[3]/

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Magnitude of the Residue (continued)					
- Foliage of the Legume Vegetables Group					
o Beans vines and hay	EP	Partially	00072139 00090120	Yes[18]	18 Months[3]
o Pea Vines and hay		Yes	00089361	No	
- Foliage of the Legume Vegetables Group					
o Soybean forage, hay, and straw		Yes	00072134 00072139	No	
- Citrus Fruits Group					
o Grapefruit		Yes	00114815	No	
o Lemons		Yes	00026686	No	
o Limes		Yes	00114815	No	
o Oranges	TEP	Partially	00026686 00089350 00114815	Yes[19],[20]	18 Months[3]
o Tangerines		Yes	00114815	No	

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Magnitude of the Residue (continued)					
- Pome Fruits Group					
o Apples	TEP	Partially	00031171 00114842	Yes[21]	18 Months[3]
o Pears		Yes	00031171 00114842	No	
- Stone Fruits Group[22]					
o Apricots		Yes	00083177 00114812	No	
o Peaches		Yes	00083177 00089353 00114812	No	
o Plums (fresh prunes)	EP, TEP	Partially	00083177 00089353 00114812	Yes[23],[24]	18 Months[3]
- Small Fruits and Berries Group[25]					
o Cranberries	EP	Partially	00089349 00114916	Yes[26],[27]	18 Months[3]
o Grapes	EP, TEP	No	-	Yes[28],[29],[30]	18 Months[3]

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Magnitude of the Residue (continued)					
- Tree Nuts Group					
o Almonds		Yes	00114812	No	
o Macadamia Nuts	EP	Partially	00072139	Yes[31]/, [32]/	18 Months[3]/
o Pecans	EP	Partially	00114812	Yes[33]/	18 Months[3]/
o Walnuts		Yes	00114812	No	
- Cereal Grains Group[34]/					
o Corn, field and sweet	TEP	Partially	00031171 00090141 00072134 00114808 00090120	Yes[35]/	18 Months[3]/
o Sorghum grain	TEP	Partially	00072139	Yes[36]/	18 Months[3]/
- Forage, Fodder, and Straw of the Cereal Grains Group[37]/					
o Corn fodder and forage		Yes	00031171 00090141 00072134 00114808 00090120	No	
o Sorghum forage, fodder, and hay		Yes	00072139	No	

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Magnitude of the Residue (continued)					
- Grass Forage, Fodder, and Hay Group					
o Grasses (pasture and rangeland)	EP	Partially	00114812	Yes38/	18 Months3/
- Miscellaneous Commodities					
o Asparagus	EP	Partially	00089810	Yes39/	18 Months3/
o Bananas	EP	Partially	00083234 00114911	Yes40/	18 Months3/
o Coffee beans	TEP	Partially	00114811	Yes41/	18 Months3/
o Cottonseed	EP, TEP	Partially	00108948 00114803	Yes42/,43/	18 Months3/
o Flaxseed	EP, TEP	Partially	00083177	Yes44/,45/	18 Months3/
o Pineapples	EP, TEP	Partially	00108929	Yes46/,47/	18 Months3/
o Sugarcane	EP, TEP	Partially	00031171	Yes48/,49/	18 Months3/
o Taro	EP, TEP	No		Yes50/	18 Months3/

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Test Substance	Does EPA Have Data?	Bibliographic Citation	Must Additional Data Be Submitted?	Time Frame for Submission
171-4 - Magnitude of the Residue (continued)					
- Crops grown solely for seed					
o Birdsfoot trefoil	EP	Partially	00114811	Yes51/	18 Months3/
- Magnitude of the Residue in Plants Resulting from the Use of Irrigation Water Containing Residues of Dalapon	TEP	Yes	00114894 00114895 00116455 40219901	No52/	
- Meat/Milk/Poultry/ Eggs		Partially	00114811	Reserved53/	
- Nature and Magnitude of the Residue in Drinking and Irrigation Water	EP	Partially	00114822 40219901	Yes54/ Reserved55/	18 Months

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1/ Data describing the distribution and metabolism of [^{14}C]dalapon in sugarcane and a root crop each treated with soil-directed application of [^{14}C]dalapon are required. Exaggerated application rates may be necessary to obtain sufficient residues for identification.

2/ Representative samples from the requested plant metabolism tests must be analyzed by available enforcement methods to ascertain that these methods are capable of determining all metabolites of concern.

3/ Data are due 18 months from first planting season after issuance of the Standard. All data must be submitted by October 31, 1990.

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4/ Studies of the metabolism of [^{14}C]dalapon in ruminants and poultry are required. Animals must be dosed for a minimum of 3 days at a level sufficient to make identification and quantification of residues possible. Milk and eggs must be collected for analysis twice daily during the dosing period, and animals must be sacrificed within 24 hours after administration of the final dose. The distribution and identity of residues must be determined in milk, liver, kidney, muscle, and fat of ruminants, and in eggs, liver, kidney, muscle, and fat of poultry.

5/ Samples from the requested animal metabolism studies must be analyzed using current enforcement methods to determine the usefulness of these methods for analysis of animal commodities.

6/ If the metabolism of dalapon in ruminants or poultry differs from that in rats, data on the metabolism of dalapon in swine are required.

7/ Method trials will be initiated at such time as the metabolism/degradation of dalapon in plants, animals and water is adequately understood and all degradates/metabolites of concern are identified.

8/ Residues of dalapon in or on crop samples must be subjected to analysis by the multiresidue protocols. Protocols for methods I, II, III, and IV are available from National Technical Information Service under Order No. PB 203734/AS.

9/ The storage intervals and conditions of samples used to support all established tolerances for residues must be submitted. These data must be accompanied by data depicting the percent decline in residues at the times and under the conditions specified. (No additional stability studies are required for plant commodities stored for up to 7 years.) On receipt of these data, the adequacy of the aforementioned tolerances will be reevaluated.

10/ All residue data requested in this standard must be accompanied by data depicting the duration and conditions of storage of samples analyzed. These data must be accompanied by data depicting the stability of residues under the conditions and for the time intervals specified, with the exception of those in or on plant commodities stored for up to 7 years.

11/ If a crop group tolerance is proposed, use directions must be proposed and appropriate supporting residue data submitted for the additional representative group members, carrot and radish, in addition to the data required to support of the established tolerance for residues of dalapon in or on potatoes.

12/ Data must be submitted depicting residues of dalapon in or on potatoes harvested following a preemergence application of the 85% SC/S formulation at 8.5 lb ai/A followed by a lay-by application at 4.25 lb ai/A. Tests must be conducted in ID(24%) and ME(6%) and MN(4%) or WI(6%) which represent the major U.S. potato production regions. The registrant must propose a preharvest interval (PHI) consistent with that reflected in the requested residue data.

13/ Data depicting the potential for concentration of residues in wet and dried peel, chips, granules, and dried potatoes processed from potatoes bearing measurable weathered residues are required. If the data indicate a potential for residue concentration during processing, appropriate food/feed additive regulations must be proposed.

14/ Data must be submitted depicting the potential for concentration of dalapon residues during the processing of dehydrate pulp, molasses and refined sugar from sugar beets bearing measurable weathered residues. If data indicate a potential for residue concentration in any of these commodities, appropriate food/feed additive regulations must be proposed.

15/ If the registrant wishes to propose a crop group tolerance, use directions must be proposed and appropriate supporting residue data submitted for the additional representative group member turnip tops, in addition to the data required to support the established tolerance for residues in or on sugar beet tops.

16/ Data depicting residues of dalapon in or on sugar beet tops resulting from preplant soil application at 6.8 lb ai/A followed by postemergence directed spray application (when plants are at the 6-leaf or 14-inch stage) at 6.8 lb ai/A. Tests must be conducted in CA(23%), MI(10%), and MN(20%) or ND(10%) which collectively represent 63% of 1984 U.S. sugar beet production.

17/ Data depicting residues in hulls, meal, crude oil, refined oil, soapstock, and grain dust processed from soybeans bearing measurable, weathered residues are required. Application of exaggerated rates may be necessary to achieve such residues. If residues concentrate in any of these processed commodities, appropriate food/feed additive regulations must be proposed.

18/ Data depicting residues of dalapon in or on hay of field, kidney, snap, or lima beans following spring preplant soil application of a SC/S formulation at 6.8 lb ai/A are required. Application must be made 5 days before plowing or discing, 8 days before planting. Tests must be conducted in CA(15%), MI(20%), and NE(16%) which accounted for 51% of 1984 U.S. dry bean production and are representative of the major domestic bean production regions.

19/ Since the data indicate a potential for concentration of dalapon residues in orange juice, a food additive regulation must be proposed for this commodity.

20/ Data depicting dalapon residues in dehydrated citrus pulp, oil, and molasses processed from oranges bearing measurable weathered residues are required. If residues concentrate in oil or molasses, appropriate food/feed additive regulations must be proposed.

21/ Data depicting dalapon residues of concern in apple juice and dry pomace processed from apples bearing measurable weathered residues (exaggerated application rates may be necessary to achieve such residues) are required. If residues are found to concentrate in either commodity, appropriate food/feed additive regulations must be proposed.

22/ If the registrant wishes to propose a crop group tolerance, use directions must be proposed, and appropriate supporting residue data submitted for the additional representative group member cherries, in addition to the data required to support the established tolerance for residues of dalapon in or on the representative group member plums.

23/ Data depicting dalapon residues of concern in or on plums harvested 30 days following the last of two broadcast soil applications of the 85% SC/S formulation at 5.95 lb ai/A/application are required. Tests must be conducted in ID(14%), MI(24%), and WA(37%) which collectively accounted for ca. 75% of 1984 U.S. plum and fresh prune production.

24/ Data depicting dalapon residues of concern in dried prunes processed from plums bearing measurable weathered residues are required. If residues concentrate in dried prunes, an appropriate food additive regulation must be proposed.

25/ If the registrant wishes to propose a crop group tolerance, use directions must be proposed, and appropriate supporting residue data submitted for the additional representative group members blackberries, blueberries, and strawberries, in addition to the data required to support the established tolerances for residues of dalapon in or on the representative group members cranberries and grapes.

26/ Data depicting dalapon residues of concern in or on cranberries harvested 60 days following the last of two postemergence swab applications (2 weeks apart) of a SC/S formulation at 1.7 lb ai/A must be submitted. Tests must be conducted in MA(50%) and WI(36%), the major U.S. cranberry production states.

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27/ Data depicting dalapon residues of concern in or on cranberries harvested following the last of two broadcast soil applications of the 10% G multiple active ingredient formulation at 15 lb ai/A must be submitted. Tests must be conducted in OR and WA where this use is registered. Alternatively, the registrant may elect to cancel this use permitted under EPA SLN nos. OR830066 and WA830043.

28/ Data depicting dalapon residues of concern in or on grapes harvested 30 days following the last of two broadcast soil applications (at 4-week intervals) of a SC/S formulation at 8.5 lb ai/100 gal/A must be submitted. Tests must be conducted in AZ where this use is registered.

29/ Data depicting dalapon residues of concern in or on mature grapes following the last of multiple soil spray applications of the 12% SC/S plus 72.5% SC/S formulations at 4.3 lb ai/A (minimum 20-100 gals) must be submitted. Tests must be conducted in CA where this use is registered. In addition, a maximum seasonal rate and a minimum PHI must be proposed; these proposals must be reflected in the submitted residue data. Alternatively, the registrant may elect to cancel this use permitted under EPA Reg. no. 464-6891.

30/ Data depicting dalapon residues of concern in dry pomace, raisins, raisin waste, and juice processed from grapes bearing measurable weathered residues must be submitted. Application at exaggerated rates may be necessary to achieve such residues. If residues are found to concentrate in any of these processed products, appropriate food/feed additive regulations must be proposed.

31/ Data depicting dalapon residues of concern in or on mature Macadamia nuts harvested following the last of multiple preharvest broadcast soil applications of a SC/S formulation at 20.4 lb ai/A (yearly total) must be submitted. Tests must be conducted in HI which produced virtually all domestically grown Macadamia nuts.

32/ Data depicting dalapon residues in or on Macadamia nuts following multiple applications of a SC/S formulation at a total yearly rate of 38 lb ai/A must be submitted. The application which immediately precedes harvest must be at 8.5 lb ai/A. Alternatively, the registrant may elect to cancel this use permitted under EPA SLN no. HI790003.

33/ Data depicting dalapon residues in or on pecans harvested following the last of three directed spray soil applications of the 12% SC/S plus the 72.5% SC/S formulations 16.9 lb ai/A/application must be submitted. The test must be performed in AZ. Alternatively, the registrant may elect to cancel this use permitted under EPA SLN no. AZ770034.

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GENERIC DATA REQUIREMENTS FOR DALAPON

34/ If the registrant wishes to propose a crop group tolerance, use directions must be proposed, and appropriate supporting residue data submitted for the additional representative group members, rice and wheat.

35/ Data depicting residues of concern in milled products (starch, crude and refined oils from wet and dry millings grits, meal, and flour) and grain dust processed from corn grain bearing measurable weathered residues must be submitted. If residues concentrate during processing in any of these commodities, appropriate food/feed additive regulations must be established.

36/ Data depicting dalapon residues of concern in milled products (flour and starch) and grain dust derived from sorghum grain bearing measurable, weathered residues must be submitted. Exaggerated rates may be necessary to obtain such residues. If residues concentrate during processing, appropriate food/feed additive regulations must be proposed.

37/ If the registrant wishes to propose a crop group tolerance, use directions must be proposed and appropriate supporting residue data submitted for the additional group member, wheat. Also required are data depicting dalapon residues of concern in or on sorghum forage harvested after spring broadcast soil application made 20 days prior to planting at 6 lb ai/A with a SC/S formulation. Tests must be conducted in GA(7%), KS(32%), NE(11%), and TX(3%); states which collectively accounted for 53% of 1984 U.S. sorghum grown for silage and are representative of the major production regions.

38/ Data depicting dalapon residues of concern in or on pasture and rangeland grass and hay harvested after the minimum prescribed conditions and PHI's following one broadcast application of a SC/S formulation at 5.1 lb ai/A (aerial and ground equipment must be represented in separate tests) are required. Tests must be conducted in GA, HI, SC, and representative Gulf Coast States in which this use is permitted. The registrant must propose an appropriate tolerance for dalapon residues of concern in or on grass hay based on the requested data.

39/ The registrant must propose label amendments that impose a 3-day PHI following preharvest use of the 85% SC/S and the 12% SC/S plus 72.5% SC/S formulations at 8.5-17 lb. ai/A. Alternatively, data reflecting residues of concern in or on asparagus harvested on the day of a single preharvest application with the 85% SC/S formulation at 17 lb ai/A must be submitted.

40/ Data depicting residues of dalapon in or on bananas following two applications of an SC/S formulation at 12.75 lb ai/A must be submitted. Samples must be collected at regular intervals until residue levels reach a plateau. Tests must be conducted in HI which produced 99% of U.S. bananas in 1982.

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41/ Data depicting the concentration of residues in roasted beans and instant coffee processed from coffee beans bearing measurable weathered residues must be submitted. If the data indicate a potential for residue concentration, the registrant must propose appropriate food additive regulations.

42/ Since cotton forage is a raw agricultural commodity under grower control, the registrant must propose a tolerance for dalapon residues in or on cotton forage and submit appropriate supporting residue data. Alternatively, the registrant must amend the label directions to include a feeding restriction on this commodity.

43/ Data depicting residues of dalapon in hulls, meal, crude oil, refined oil, and soapstock obtained from cottonseed bearing measurable weathered residues must be submitted. If residues concentrate in any of these processed commodities, appropriate food/feed additive regulations must be proposed.

44/ Data depicting residues of dalapon in or on flaxseed and straw resulting from broadcast soil application (using ground and aerial equipment in separate tests) of the 85% SC/S or the 12% SC/S plus the 72.5% SC/S formulations at 0.85 lb ai/A when flax is 6 inches tall must be submitted. Tests must be conducted in ND which produced 69% of 1984 U.S. flax.

45/ Data depicting dalapon residues in hulls and linseed meal processed from flaxseed bearing measurable weathered residues must be submitted. If the data indicate a potential for concentration in either of these commodities, appropriate feed additive regulations must be proposed.

46/ The registrant must propose an appropriate tolerance for residues of dalapon in or on pineapple forage based on the required data. Alternatively, the registrant must amend the label directions to include a feeding restriction on this commodity.

47/ Data depicting residues of dalapon in pineapple bran and juice processed from fruit bearing measurable weathered residues must be submitted. If the data indicate a potential for residue concentration in these commodities, appropriate food/feed additive regulations must be proposed.

48/ Since sugarcane forage is a raw agricultural commodity, the registrant must propose a tolerance for this commodity and submit appropriate supporting residue data.

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49/ Data depicting the potential for concentration of dalapon residues in molasses and refined sugar processed from sugarcane bearing measurable weathered residues must be submitted. If the data indicate a potential for concentration of residues in these commodities, appropriate food/feed additive regulations must be proposed.

50/ The use of dalapon on taro is permitted under a SLN registration (EPA Reg. no. HI790014). The 12% SC/S plus 72.5% SC/S formulation is registered for preplant application at 12.8 lb ai/A. Applications may be repeated as necessary. These uses should either be canceled or supported by residue data and a tolerance proposal.

51/ Data depicting dalapon residues of concern in or on birdsfoot trefoil forage and hay resulting from early spring broadcast application of a SC/S formulation at 4.25 lb ai/A in 20-30 gal/A must be submitted. The registrant must propose appropriate tolerances for dalapon residues in or on birdsfoot trefoil forage and hay. Tests must be conducted in MI, NY, and VT where this use is registered.

52/ Pending the results of the degradation/metabolism studies required below, the obsolete crop groupings presently entered in 40 CFR 180.150(b) should be deleted and a single tolerance of 2.0 ppm for residues of dalapon per se in all of the crops listed in the new crop groups and individual crops should be established as a result of irrigation using water containing dalapon residues up to 0.5 ppm.

53/ The nature of the residue in animals is not adequately understood. On receipt of the data requested in the section entitled "Nature of the Residue in Animals", the appropriate nature of tolerances for residues in animal products will be determined. The adequacy of the available data regarding the magnitude of the residue in milk; meat and meat by-products of cattle, goats, hogs, and sheep; and in eggs and the meat and meat by-products of poultry will then be determined, with due consideration for any newly found metabolites.

54/ No information regarding the degradation/metabolism of dalapon in water is available. Studies which will identify the terminal residue of concern in water are required. Conclusions regarding residues of dalapon per se in water are therefore tentative pending submission of acceptable degradation/metabolism studies.

55/ Based on data submitted for irrigation ditchbanks an appropriate level of dalapon per se to be expected in water as a result of irrigation ditchbank control would be 0.5 ppm. Data for ditchbanks is being translated to the cranberry bog use and the same level is appropriate for this application.

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Data Requirement	Composition	Use Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.130 Environmental Fate						
DEGRADATION STUDIES-LAB:						
161-1 - Hydrolysis	TGAI or PAIRA	ABDG	No	-	Yes[1]	9 Months
Photodegradation						
161-2 - In water	TGAI or PAIRA	ABDG	No	-	Yes[1]	9 Months
161-3 - On soil	TGAI or PAIRA	AG	No	-	Yes[1]	9 Months
161-4 - In Air	TGAI or PAIRA	A	No	-	No[2]	
METABOLISM STUDIES-LAB:						
162-1 - Aerobic Soil	TGAI or PAIRA	ABG	No	-	Yes[1]	27 Months
162-2 - Anaerobic Soil	TGAI or PAIRA	A	No	-	Yes[1]	27 Months
162-3 - Anaerobic Aquatic	TGAI or PAIRA	DG	No	-	Yes[1]	27 Months
162-4 - Aerobic Aquatic	TGAI or PAIRA	D	No	-	Yes	27 Months

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Data Requirement	Composition	Use Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.130 Environmental Fate (continued)						
MOBILITY STUDIES:						
163-1 - Leaching and Adsorption/Desorption	TGAI or PAIRA	ABDG	No	-	Yes[1]/	12 Months
163-2 - Volatility (Lab)	TEP	A	No	-	Yes	12 Months
163-3 - Volatility (Field)	TEP	A	No	-	Conditional[3]/	
DISSIPATION STUDIES-FIELD:						
164-1 - Soil	TEP	AB	No	-	Yes[1]/	27 Months
164-2 - Aquatic (Sediment)	TEP	D	No	-	Yes	27 Months
164-3 - Forestry	TEP	G	No	-	Yes[1]/	27 Months
164-4 - Combination and Tank Mixes	TEP	N/A	No	-	No[4]/	
164-5 - Soil, Long-term	TEP	A	No	-	Conditional[5]/	

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GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use Pattern	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.130 Environmental Fate (continued)						
ACCUMULATION STUDIES:						
165-1 - Rotational Crops (Confined)	PAIRA	A	No	-	Yes	39 Months
165-2 - Rotational Crops (Field)	TEP	A	No	-	Conditional6/	
165-3 - Irrigated Crops	TEP	D	No	-	Yes	39 Months
165-4 - In Fish	TGAI or PAIRA	ABDG	No	-	Yes	12 Months
165-5 - In Aquatic Nontarget Organisms	TEP	DG	No	-	Conditional7/	

1/ Studies cited or submitted in response to the August 1984 data call-in are inadequate. New studies must be submitted.
2/ Use pattern does not indicate significant inhalation exposure.
3/ Conditional data requirement deferred pending receipt of an acceptable laboratory volatility study.
4/ Data are not required because combination and tank mix uses are not covered in this Standard.
5/ Data requirement deferred pending receipt of an acceptable field dissipation study.
6/ Data requirement deferred pending receipt of an acceptable confined rotation study.
7/ Data requirement deferred pending receipt of an acceptable fish accumulation study.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use Patterns	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.135 Toxicology						
ACUTE TESTING:						
81-1 - Acute Oral - Rat	TGAI	ABDG	No	-	Yes	9 Months
81-2 - Acute Dermal	TGAI	ABDG	No	-	Yes	9 Months
81-3 - Acute Inhalation - Rat	TGAI	ABDG	No	-	Yes	9 Months
81-4 - Eye Irritation - Rabbit	TGAI	ABDG	No	-	Yes	9 Months
81-5 - Dermal Irritation - Rabbit	TGAI	ABDG	No	-	Yes	9 Months
81-6 - Dermal Sensitization - Guinea Pig	TGAI	ABDG	No	-	Yes	9 Months
81-7 - Acute Delayed Neurotoxicity - Hen	TGAI	ABDG	No	-	No[1]	
SUBCHRONIC TESTING:						
82-1 - 90-Day Feeding -						
Rodent	TGAI	ABDG	No	-	Yes	15 Months
Non-rodent	TGAI	ABDG	No	-	Yes	18 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use Patterns	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.135 Toxicology - Continued						
82-2 - 21-Day Dermal	TGAI	ABDG	No	-	Yes	12 Months
82-3 - 90-Day Dermal	TGAI	ABDG	No	-	No[2]	
82-4 - 90-Day Inhalation	TGAI	ABDG	No	-	No[2]	
82-5 - 90-Day Neurotoxicity	TGAI	ABDG	No	-	No[3]	
CHRONIC TESTING:						
83-1 - Chronic Toxicity -						
Rodent	TGAI	ABDG	No	-	Yes[4]	50 Months
Non-rodent	TGAI	ABDG	No	-	Yes	50 Months
83-2 - Oncogenicity Study -						
Rat	TGAI	ABDG	No	-	Yes[4]	50 Months
Mouse	TGAI	ABDG	Partially	00144023	Yes[5]	6 Months
83-3 - Teratogenicity -						
Rat	TGAI	ABDG	No	-	Yes	15 Months
Rabbit	TGAI	ABDG	No	-	Yes[6]	15 Months
83-4 - Reproduction -	TGAI	ABDG	No	-	Yes	39 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use Patterns	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.135 Toxicology - Continued						
MUTAGENICITY TESTING						
84-2 - Gene Mutation	TGAI	ABDG	No		Yes	9 Months
84-2 - Chromosomal Aberration	TGAI	ABDG	No		Yes	12 Months
84-2 - Other Mechanisms of Mutagenicity	TGAI	ABDG	No		Yes	12 Months
SPECIAL TESTING						
85-1 - General Metabolism	PAI or PAIRA	ABDG	No		Yes	24 Months

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1/ This study is required only for compounds which are organophosphate inhibitors of cholinesterase, or related to such inhibitors or metabolites of such inhibitors. Dalapon is not an organophosphate, therefore, a study is not required.

2/ This study is not required for the present use patterns.

3/ Since an acute neurotoxicity study is not required and there is no evidence of neurotoxicity in mammalian species, this study is not required.

4/ Studies cited or submitted in response to the August 1984 data call in are unacceptable. New studies must be submitted.

5/ Historical control data on the incidence of lung tumors for the mice used in study 00144023 are required.

6/ A teratogenicity study in rabbits (MRID 40125701) was submitted in March 1987 in response to the August 1984 data call in. This study was not available to the Agency in time for review for inclusion in this document.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms						
AVIAN AND MAMMALIAN TESTING						
71-1 - Avian Oral LD_{50}	TGAI	A,B,C,D,G	No	-	Yes	9 Months
71-2 - Avian Dietary LC_{50}	TGAI	A,B,C,D,G	Partially	00022923	Yes[1]/, [2]/	9 Months
71-3 - Wild Mammal Toxicity	TGAI	A,B,C,D,G	No	-	No[3]/	
71-4 - Avian Reproduction	TGAI	A,B,C,D,G	No	-	No[3]/	
71-5 - Simulated and Actual Field Testing - Mammals and Birds	TEP	A,B,C,D,G	No	-	No[3]/	
AQUATIC ORGANISM TESTING						
72-1 - Freshwater Fish LC_{50}	TGAI TEP	A,B,C,D,E,G C,D	Partially Yes	40094602 40219801 40219802	Yes[1]/, [4]/ No[5]/	9 Months
72-2 - Acute LC_{50} Freshwater Invertebrates	TGAI TEP	A,B,C,D,E,G C,D	Partially No	40094602 -	Yes[6]/ Yes[7]/	9 Months 9 Months
72-3 - Acute LC_{50} Estuarine and Marine Organisms	TGAI TEP	A,C,D A,C,D	No No	- -	No[8]/ No[8]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms (continued)						
72-4 - Fish Early Life Stage	TGAI	A,C,D	No	-	Reserved9/	
Aquatic Invertebrate Life-Cycle	TGAI	A,C,D	No	-	Reserved10/	
72-5 - Fish Life-Cycle	TGAI	A,C,D	No	-	Reserved11/	
AQUATIC ORGANISM TESTING						
72-6 - Aquatic Organism Accumulation	TGAI	A,C,D	No	-	Yes12/	12 Months
72-7 - Simulated or Actual Field Testing	TEP	A,C,D	No	-	Reserved13/	

1/ Data are required for magnesium salt. Only one species is required at this time since the magnesium salt is only used in combination with the sodium salt and pending results of comparison toxicity data on the sodium salt and the acid of dalapon. For the avian dietary study, test must include up to 50,000 ppm.

2/ Data for dalapon acid are reserved pending results of the acute oral LD_{50} studies on the sodium salt and the acid of dalapon.

3/ Not required for this use pattern.

4/ Only the requirement for the warmwater species has been fulfilled for dalapon acid.

5/ Acceptable data are available for the magnesium salt and sodium salt formulations. Data not required for the dalapon acid because the inerts in granular formulations of dalapon acid are not likely to increase the toxicity of the formulated product.

6/ Required only for magnesium salt.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

7/ Required to support cranberry, taro and drainage and irrigation ditchbank uses for the SC/S formulation containing 12% magnesium salt and 72.5% sodium salt. The combination product with the sodium salt of dalapon would be used to satisfy the requirement for formulated product testing.

8/ Not required at this time based on low order toxicity to freshwater organisms and the low estimated environmental concentration (EEC) when compared to the toxicity values.

9/ Reserved pending results of environmental fate data such as hydrolysis, photolysis, aquatic field dissipation and toxicity studies on the coldwater fish (72-1).

10/ Reserved pending results of environmental fate data such as hydrolysis, photolysis and aquatic field dissipation.

11/ May be required to support cranberry use depending on the results of partial chronic studies (72-4), if required.

12/ Data required for hazard assessment.

13/ May be required to support cranberry use depending on the results of chronic studies and the results of environmental fate data.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.150 Plant Protection						
121-1 - TARGET AREA PHYTOTOXICITY	TEP		No	-	No[1]/	
NONTARGET AREA PHYTOTOXICITY						
TIER I						
122-1 - Seed Germination/ Seedling Emergence	TGAI	B,D,G	No	-	Yes[2]/	9 Months
122-1 - Vegetative Vigor	TGAI	B,D,G	No	-	Yes[2]/	9 Months
122-1 - Aquatic Plant Growth	TGAI	B,D,G	No	-	Yes[2]/	9 Months
TIER II						
123-1 - Seed Germination/ Seedling Emergence	TGAI	B,D,G	No	-	Reserved[3]/	
123-1 - Vegetative Vigor	TGAI	B,D,G	No	-	Reserved[3]/	
123-1 - Aquatic Plant Growth	TGAI	B,D,G	No	-	Reserved[3]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.150 Plant Protection						
TIER III						
124-1 - Terrestrial Field	TEP	B,D,G	No	-	Reserved4/	
124-2 - Aquatic Field	TEP	B,D,G	No	-	Reserved4/	

1/ Data are required only on a case-by-case basis.
2/ Data are required for sodium salt and magnesium salt products.
3/ Reserved pending results of Tier I.
4/ Reserved pending results of Tier II.

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.155 Nontarget Insect						
NONTARGET INSECT TESTING - POLLINATORS:						
141-1 - Honeybee acute contact LD_{50}	TGAI	A,B	Yes	00036935	No	
141-2 - Honeybee - toxicity of residues on foliage	TEP	A,B	No	-	No[1]/	
141-4 - Honeybee subacute feeding study	TEP	A,B	No	-	Reserved[2]/	
141-5 - Field testing for pollinators	TEP	A,B	No	-	No[1]/	
NONTARGET INSECT TESTING - AQUATIC INSECTS:						
142-1 - Acute toxicity to aquatic insects	TEP	A,B	No	-	Reserved[3]/	
142-2 - Aquatic insect life-cycle study	TEP	A,B	No	-	Reserved[3]/	
142-3 - Simulated or actual field testing for aquatic insects	TEP	A,B	No	-	Reserved[3]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR DALAPON

Data Requirement	Composition	Use	Does EPA Have Data To Satisfy This Requirement? (Yes, No or Partially)	Bibliographic Citation	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.155 Nontarget Insect						
143-1 thru 143-3 - NONTARGET INSECT TESTING - PREDATORS AND PARASITES	TEP	A,B	No	-	Reserved[3]	

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[1] As data from the acute contact study indicate low toxicity, no further testing is required.
[2] Reserved pending development of test methodology.
[3] Reserved pending Agency decision as to whether the data requirement should be established.

TABLE B
PRODUCT-SPECIFIC DATA REQUIREMENTS FOR DALAPON FORMULATION INTERMEDIATES

Data Requirement	Composition	Does EPA Have Data To Satisfy This Requirement?1/	Bibliographic Citation1/	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry					
Product Identity and Composition:					
61-1 - Product Identity and Disclosure of Ingredients	FI	NA	NA	Yes2/	9 Months
61-2 - Description of Beginning Materials and Manufacturing Process	FI	NA	NA	Yes3/	9 Months
61-3 - Discussion of Formation of Impurities	FI	NA	NA	Yes4/	9 Months
Analysis and Certification of Product Ingredients					
62-1 - Preliminary Analysis of Product Samples	FI	NA	NA	Yes5/	9 Months
62-2 - Certification of Ingredient Limits	FI	NA	NA	Yes6/	9 Months
62-3 - Analytical Methods to Verify Certified Limits	FI	NA	NA	Yes7/	9 Months

TABLE B

PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON FORMULATION INTERMEDIATES

Data Requirement	Composition	Does EPA Have Data To Satisfy This Requirement?1/	Bibliographic Citation1/	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry (continued)					
Physical and Chemical Characteristics					
63-2 - Color	FI	NA	NA	Yes	9 Months
63-3 - Physical State	FI	NA	NA	Yes	9 Months
63-4 - Odor	FI	NA	NA	Yes	9 Months
63-5 - Melting Point	FI	NA	NA	Yes	9 Months
63-6 - Boiling Point	FI	NA	NA	Yes	9 Months
63-7 - Density, Bulk Density, or Specific Gravity	FI	NA	NA	Yes	9 Months
63-8 - Solubility	FI	NA	NA	Yes	6 Months
63-9 - Vapor Pressure	FI	NA	NA	Yes	6 Months
63-10 - Dissociation Constant	FI	NA	NA	Yes	6 Months
63-11 - Octanol/Water Partition Coefficient	FI	NA	NA	Yes	6 Months
63-12 - pH	FI	NA	NA	Yes	6 Months
63-13 - Stability	FI	NA	NA	Yes	15 Months
Other Requirements:					
64-1 - Submittal of samples	NA		NA		

1/ Although product chemistry data may have been submitted in the past, the Agency has determined that these data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated. Therefore, bibliographic citations for the old data are not applicable.

2/ The purpose of each intentionally added inert, the identity (chemical name and CAS Registry no.) for each active ingredient, and the name of each impurity for which a certified limit must be submitted.

TABLE B

PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON FORMULATION INTERMEDIATES

3/ Complete details of the manufacturing process, including a description of the equipment used to produce the product, reaction conditions, the duration of each step of the process, and purification procedures and quality control measures must be provided. Complete information regarding the nature of the process (batch or continuous), the relative amounts of beginning materials and the order in which they are added, and a flow chart with chemical equations for each intended reaction must be provided. In addition, the name and address of the manufacturer, producer, or supplier of each beginning material must be provided along with information regarding the properties of each beginning material.

4/ A detailed discussion of all impurities that are or may be present at ≥0.1%, based on knowledge of the beginning materials, chemical reactions (intended and side) in the manufacturing process, and any contamination during and after production must be submitted.

5/ Five or more representative samples must be analyzed for the active ingredient and each impurity present at ≥0.1% (w/w). Complete validation data (accuracy, precision) for each analytical method used must be submitted.

6/ Upper and lower limits for dalapon and for each intentionally added inert in each FI, and upper limits for each impurity present at >0.1% (w/w), and for each "toxicologically significant" impurity present at <0.1% (w/w) must be provided, certified, and validated by sample analysis using analytical procedures for which accuracy and precision data have been provided. Certifications must be submitted on EPA Form 8570 Rev. 2-85.

7/ Analytical methods to determine the active ingredient and each toxicologically significant impurity and intentionally added inert for which a certified limit is required must be submitted. Each method must be accompanied by validation studies indicating its accuracy and precision, so as to be suitable for enforcement of certified limits.

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON FORMULATION INTERMEDIATES

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Time Frame for Submission
§158.135 Toxicology						
ACUTE TESTING						
81-1 - Acute Oral Toxicity - Rat	FI	ABDG	No		Yes	9 Months
81-2 - Acute Dermal Toxicity - Rabbit	FI	ABDG	No		Yes	9 Months
81-3 - Acute Inhalation Toxicity - Rat	FI	ABDG	No		Yes	9 Months
81-4 - Primary Eye Irritation - Rabbit	FI	ABDG	No		Yes	9 Months
81-5 - Primary Dermal Irritation - Rabbit	FI	ABDG	No		Yes	9 Months
81-6 - Dermal Sensitization - Guinea Pig	FI	ABDG	No		Yes	9 Months

TABLE C
PRODUCT-SPECIFIC DATA REQUIREMENTS FOR DALAPON END-USE PRODUCTS FORMULATED WITH NONREGISTERED TECHNICALS

Data Requirement	Composition	Does EPA Have Data To Satisfy This Requirement?1/	Bibliographic Citation1/	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry					
Product Identity and Composition:					
61-1 - Product Identity and Disclosure of Ingredients	EP	NA	NA	Yes2/	9 Months
61-2 - Description of Beginning Materials and Manufacturing Process	EP	NA	NA	Yes3/	9 Months
61-3 - Discussion of Formation of Impurities	EP	NA	NA	Yes4/	9 Months
Analysis and Certification of Product Ingredients					
62-1 - Preliminary Analysis of Product Samples	EP	NA	NA	Yes5/	9 Months
62-2 - Certification of Ingredient Limits	EP	NA	NA	Yes6/	9 Months
62-3 - Analytical Methods to Verify Certified Limits	EP	NA	NA	Yes7/	9 Months

TABLE C
PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON END-USE PRODUCTS FORMULATED WITH NONREGISTERED TECHNICALS

Data Requirement	Composition	Does EPA Have Data To Satisfy This Requirement?1/	Bibliographic Citation1/	Must Additional Data Be Submitted Under FIFRA Section 3(c)(2)(B)?	Time Frame for Submission
§158.120 Product Chemistry (continued)					
Physical and Chemical Characteristics					
63-2 - Color	EP	NA	NA	Yes	9 Months
63-3 - Physical State	EP	NA	NA	Yes	9 Months
63-4 - Odor	EP	NA	NA	Yes	9 Months
63-5 - Melting Point	EP	NA	NA	Yes	9 Months
63-6 - Boiling Point	EP	NA	NA	Yes	9 Months
63-7 - Density, Bulk Density, or Specific Gravity	EP	NA	NA	Yes	9 Months
63-8 - Solubility	EP	NA	NA	Yes	6 Months
63-9 - Vapor Pressure	EP	NA	NA	Yes	6 Months
63-10 - Dissociation Constant	EP	NA	NA	Yes	6 Months
63-11 - Octanol/Water Partition Coefficient	EP	NA	NA	Yes	6 Months
63-12 - pH	EP	NA	NA	Yes	6 Months
63-13 - Stability	EP	NA	NA	Yes	15 Months
Other Requirements:					
64-1 - Submittal of samples	NA				

1/ Although product chemistry data may have been submitted in the past, the Agency has determined that these data must be resubmitted for each pesticide. New requirements have been introduced and previously submitted data must be updated. Therefore, bibliographic citations for the old data are not applicable.

2/ The purpose of each intentionally added inert, the identity (chemical name and CAS Registry no.) for each active ingredient, and the name of each impurity for which a certified limit must be submitted.

TABLE C
PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON END-USE PRODUCTS FORMULATED WITH NONREGISTERED TECHNICALS

3/ Complete details of the manufacturing process, including a description of the equipment used to produce the product, reaction conditions, the duration of each step of the process, and purification procedures and quality control measures must be provided. Complete information regarding the nature of the process (batch or continuous), the relative amounts of beginning materials and the order in which they are added, and a flow chart with chemical equations for each intended reaction must be provided. In addition, the name and address of the manufacturer, producer, or supplier of each beginning material must be provided along with information regarding the properties of each beginning material.

4/ A detailed discussion of all impurities that are or may be present at ≥0.1%, based on knowledge of the beginning materials, chemical reactions (intended and side) in the manufacturing process, and any contamination during and after production must be submitted.

5/ Five or more representative samples must be analyzed for the active ingredient and each impurity present at ≥0.1% (w/w). Complete validation data (accuracy, precision) for each analytical method used must be submitted.

6/ Upper and lower limits for dalapon and for each intentionally added inert in each FI, and upper limits for each impurity present at >0.1% (w/w), and for each "toxicologically significant" impurity present at <0.1% (w/w) must be provided, certified, and validated by sample analysis using analytical procedures for which accuracy and precision data have been provided. Certifications must be submitted on EPA Form 8570 Rev. 2-85.

7/ Analytical methods to determine the active ingredient and each toxicologically significant impurity and intentionally added inert for which a certified limit is required must be submitted. Each method must be accompanied by validation studies indicating its accuracy and precision, so as to be suitable for enforcement of certified limits.

TABLE C
PRODUCT SPECIFIC DATA REQUIREMENTS FOR DALAPON END-USE PRODUCTS FORMULATED WITH NONREGISTERED TECHNICALS

Data Requirement	Test Substance	Use Pattern	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Time Frame for Submission
§158.135 Toxicology						
ACUTE TESTING						
81-1 - Acute Oral Toxicity - Rat	EP	ABDG	No		Yes	9 Months
81-2 - Acute Dermal Toxicity - Rabbit	EP	ABDG	No		Yes	9 Months
81-3 - Acute Inhalation Toxicity - Rat	EP	ABDG	No		Yes	9 Months
81-4 - Primary Eye Irritation - Rabbit	EP	ABDG	No		Yes	9 Months
81-5 - Primary Dermal Irritation - Rabbit	EP	ABDG	No		Yes	9 Months
81-6 - Dermal Sensitization - Guinea Pig	EP	ABDG	No		Yes	9 Months

APPENDIX II

LABELING

SUMMARY-1

LABEL CONTENTS

40 CFR 162.10 requires that certain specific labeling statements appear at certain locations on the label. This is referred to as format labeling. Specific label items listed below are keyed to the table at the end of this Appendix.

Item 1. PRODUCT NAME - The name, brand or trademark is required to be located on the front panel, preferably centered in the upper part of the panel. The name of a product will not be accepted if it is false or misleading.

Item 2. COMPANY NAME AND ADDRESS - The name and address of the registrant or distributor is required on the label. The name and address should preferably be located at the bottom of the front panel or at the end of the label text.

Item 3. NET CONTENTS - A net contents statement is required on all labels or on the container of the pesticide. The preferred location is the bottom of the front panel immediately above the company name and address, or at the end of the label text. The net contents must be expressed in the largest suitable unit, e.g., "1 pound 10 ounces" rather than "26 ounces." In addition to English units, net contents may be expressed in metric units. [40 CFR 162.10(d)]

Item 4. EPA REGISTRATION NUMBER - The registration number assigned to the pesticide product must appear on the label, preceded by the phrase "EPA Registration No.," or "EPA Reg. No." The registration number must be set in type of a size and style similar to other print on that part of the label on which it appears and must run parallel to it. The registration number and the required identifying phrase must not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency. [40 CFR 162.10(e)]

Item 5. EPA ESTABLISHMENT NUMBER - The EPA establishment number, preceded by the phrase "EPA Est." is the final establishment at which the product was produced, and may appear in any suitable location on the label or immediate container. It must also appear on the wrapper or outside container of the package if the EPA establishment number on the immediate container cannot be clearly read through such wrapper or container. [40 CFR 162.10(f)]

Item 6A. INGREDIENTS STATEMENT - An ingredients statement is required on the front panel. The ingredients statement must contain the name and percentage by weight of each active ingredient and the total percentage by weight of all inert ingredients. The preferred location is immediately below the product name. The ingredients statement must run parallel with, and be clearly distinguished from, other text on the panel. It must not be placed in the body of other text. [40 CFR 162.10(g)]

Item 6B. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - Front panel precautionary statements must be grouped together, preferably within a block outline. The table below shows the minimum type size requirements for various size labels.

Size of Label on Front Panel in Square Inches	Signal Word Minimum Type Size All Capitals	"Keep Out of Reach of Children" Minimum Type Size
5 and under	6 point	6 point
above 5 to 10	10 point	6 point
above 10 to 15	12 point	8 point
above 15 to 30	14 point	10 point
over 30	18 point	12 point

Item 7A. CHILD HAZARD WARNING STATEMENT - The statement "Keep Out of Reach of Children" must be located on the front panel above the signal word except where contact with children during distribution or use is unlikely. [40 CFR 162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (DANGER, WARNING, or CAUTION) is required on the front panel immediately below the child hazard warning statement. [40 CFR 162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, dermal, or inhalation toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word POISON. [40 CFR 162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. [40 CFR 162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. [40 CFR 162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. [40 CFR 162.10(h)(2)].

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. [40 CFR 162.10(h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. [40 CFR 162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD - FLAMMABILITY Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in the PHYS/CHEM Labeling Appendix. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.

Item 9A. RESTRICTED USE CLASSIFICATION - FIFRA sec. 3(d) requires that all pesticide formulations/uses be classified for either general or restricted use. Products classified for restricted use may be limited to use by certified applicators or persons under their direct supervision (or may be subject to other restrictions that may be imposed by regulation).

In the Registration Standard, the Agency has (1) indicated certain formulations/uses are to be restricted (Section IV indicates why the product has been classified for restricted use); or (2) reserved any classification decision until appropriate data are submitted.

The Regulatory Position and Rationale states whether products containing this active ingredient are classified for restricted use. If they are restricted the draft label(s) submitted to the Agency as part of your application must reflect this determination (see below).

If you do not believe that your product should be classified for restricted use, you must submit any information and rationale with your application for reregistration. During the Agency's review of your application, your proposed classification determination will be evaluated in accordance with the provisions of 40 CFR 162.11(c). You will be notified of the Agency's classification decision.

Classification Labeling Requirements

If your product has been classified for restricted use, the following label requirements apply:

1. All uses restricted.

a. The statement "Restricted Use Pesticide" must appear at the top of the front panel of the label. The statement must be set in type of the same minimum size as required for human hazard signal word (see table in 40 CFR 162.10(h)(1)(iv)

b. Directly below this statement on the front panel, a summary statement of the terms of restriction must appear (including the reasons for restriction if specified in Section I). If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification."

2. Some but not all uses restricted. If the Regulatory Position and Rationale states that some uses are classified for restricted use, and some are unclassified, several courses of action are available:

a. You may label the product for Restricted use. If you do so, you may include on the label uses that are unrestricted, but you may not distinguish them on the label as being unrestricted.

b. You may delete all restricted uses from your label and submit draft labeling bearing only unrestricted uses.

c. You may "split" your registration, i.e., register two separate products with identical formulations, one bearing only unrestricted uses, and the other bearing restricted uses. To do so, submit two applications for reregistration, each containing all forms and necessary labels. Both applications should be submitted simultaneously. Note that the products will be assigned separate registration numbers.

Item 9B. MISUSE STATEMENT - All products must bear the misuse statement, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." This statement appears at the beginning of the directions for use, directly beneath the heading of that section.

SUMMARY-5

Item 10A. REENTRY STATEMENT - If a reentry interval has been established by the Agency, it must be included on the label. Additional worker protection statements may be required in accordance with PR Notice 83-2, March 29, 1983.

Item 10B. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix II, STOR, PEST/DIS, and CONT/DIS to determine the storage and disposal instructions appropriate for your products.

Item 10C. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. [40 CFR 162.10]

COLLATERAL LABELING

Bulletins, leaflets, circulars, brochures, data sheets, flyers, or other written or graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

SUMMARY-6

LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
1	Product name	All products	Front panel	Center front panel	
2	Company name and address	All products	None	Bottom front panel or end of label text	If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc.
3	Net contents	All products	None	Bottom front panel or end of label text	May be in metric units in addition to U.S. units
4	EPA Reg. No.	All products	None	Front panel	Must be in similar type size and run parallel to other type.
5	EPA Est. No.	All products	None	Front panel, immediately before or following Reg. No.	May appear on the container instead of the label.
6A	Ingredients statement	All products	Front panel	Immediately following product name	Text must run parallel with other text on the panel.
6B	Pounds/gallon statement	Liquid products where dosage given as lbs. ai/unit area	Front panel	Directly below the main ingredients statement	
7	Front panel precautionary statements	All products	Front panel		All front panel precautionary statements must be grouped together, preferably blocked.
7A	Keep Out of Reach of Children (Child hazard warning)	All products	Front panel	Above signal word	Note type size requirements.
7B	Signal word	All products	Front panel	Immediately below child hazard warning	Note type size requirements.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
7C	Skull & crossbones and word POISON (in red)	All products which are Category I based on oral, dermal, or inhalation toxicity	Front panel	Both in close proximity to signal word	
7D	Statement of Practical Treatment or First Aid	All products in Categories I, II, and III	Category I: Front panel unless referral statement is used. Others: Grouped with side panel precautionary statements.	Front panel for all.	
7E	Referral statement	All products where precautionary labeling appears on other than front panel.	Front panel		
8	Side/back panel precautionary statements	All products	None	Top or side of back panel preceding directions for use	Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked.
8A	Hazards to humans and domestic animals	All products in Categories I, II, and III	None	Same as above	Must be preceded by appropriate signal word.
8B	Environmental hazards	All products	None	Same as above	Environmental hazards include bee caution where applicable.

SUMMARY-8

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
8C	Physical or chemical hazards	All pressurized products, others with flash points under 150°F	None	Same as above	Refer to Appendix II guide PHYS/CHEM
9A	Restricted block	All restricted products	Top center of front panel	Preferably blocked	Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word.
9B	Misuse statement	All products	Immediately following heading of directions for use		Required statement is: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."
10A	Reentry statement	PR Notice 83-2 or as determined by the Agency	In the directions for use	Immediately after misuse statement	
10B	Storage and disposal block	All products	In the directions for use	Immediately before specific directions for use or at the end of directions for use	Must be set apart and clearly distinguishable from from other directions for use. Refer to Appendix II guides STOR, CONT/DIS, and PEST/DIS for further information and required statements.
10C	Directions for use	All products	None	None	May be in metric as well as U.S. units

§162.10 Labeling requirements.

(a) General--(1) Contents of the label. Every pesticide product shall bear a label containing the information specified by the Act and the regulations in this Part. The contents of a label must show clearly and prominently the following:

(i) The name, brand, or trademark under which the product is sold as prescribed in paragraph (b) of this section;

(ii) The name and address of the producer, registrant, or person for whom produced as prescribed in paragraph (c) of this section;

(iii) The net contents as prescribed in paragraph (d) of this section;

(iv) The product registration number as prescribed in paragraph (e) of this section;

(v) The producing establishment number as prescribed in paragraph (f) of this section;

(vi) An ingredient statement as prescribed in paragraph (g) of this section;

(vii) Warning or precautionary statements as prescribed in paragraph (h) of this section;

(viii) The directions for use as prescribed in paragraph (i) of this section; and

(ix) The use classification(s) as prescribed in paragraph (j) of this section.

(2) Prominence and legibility. (i) All words, statements, graphic representations, designs or other information required on the labeling by the Act or the regulations in this part must be clearly legible to a person with normal vision, and must be placed with such conspicuousness (as compared with other words, statements, designs, or graphic matter on the labeling) and expressed in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.

(ii) All required label text must:

(A) Be set in 6-point or larger type;

(B) Appear on a clear contrasting background; and

(C) Not be obscured or crowded.

(3) Language to be used. All required label or labeling text shall appear in the English language. However, the Agency may require or the applicant may propose additional text in other languages as is considered necessary to protect the public. When additional text in another language is necessary, all labeling requirements will be applied equally to both the English and other-language versions of the labeling.

(4) Placement of Label--(i) General. The label shall appear on or be securely attached to the immediate container of the

pesticide product. For purposes of this Section, and the misbranding provisions of the Act, "securely attached" shall mean that a label can reasonably be expected to remain affixed during the foreseeable conditions and period of use. If the immediate container is enclosed within a wrapper or outside container through which the label cannot be clearly read, the label must also be securely attached to such outside wrapper or container, if it is a part of the package as customarily distributed or sold.

(ii) Tank cars and other bulk containers--(A) Transportation. While a pesticide product is in transit, the appropriate provisions of 49 CFR Parts 170-189, concerning the transportation of hazardous materials, and specifically those provisions concerning the labeling, marking and placarding of hazardous materials and the vehicles carrying them, define the basic Federal requirements. In addition, when any registered pesticide product is transported in a tank car, tank truck or other mobile or portable bulk container, a copy of the accepted label must be attached to the shipping papers, and left with the consignee at the time of delivery.

(B) Storage. When pesticide products are stored in bulk containers, whether mobile or stationary, which remain in the custody of the user, a copy of the label of labeling, including all appropriate directions for use, shall be securely attached to the container in the immediate vicinity of the discharge control valve.

(5) False or misleading statements. Pursuant to section 2(q)(1)(A) of the Act, a pesticide or a device declared subject to the Act pursuant to § 162.15, is misbranded if its labeling is false or misleading in any particular including both pesticidal and non-pesticidal claims. Examples of statements or representations in the labeling which constitute misbranding include:

(i) A false or misleading statement concerning the composition of the product;

(ii) A false or misleading statement concerning the effectiveness of the product as a pesticide or device;

(iii) A false or misleading statement about the value of the product for purposes other than as a pesticide or device;

(iv) A false or misleading comparison with other pesticides or devices;

(v) Any statement directly or indirectly implying that the pesticide or device is recommended or endorsed by any agency of the Federal Government;

(vi) The name of a pesticide which contains two or more principal active ingredients if the name suggests one or more but not all such principal active ingredients even though the names of the other ingredients are stated elsewhere in the labeling;

(vii) A true statement used in such a way as to give a false or misleading impression to the purchaser;

(viii) Label disclaimers which negate or detract from labeling statements required under the Act and these regulations;

(ix) Claims as to the safety of the pesticide or its ingredients, including statements such as "safe," "nonpoisonous," "noninjurious," "harmless" or "nontoxic to humans and pets" with or without such a qualifying phrase as "when used as directed"; and

(x) Non-numerical and/or comparative statements on the safety of the product, including but not limited to:

(A) "Contains all natural ingredients";

(B) "Among the least toxic chemicals known"

(C) "Pollution approved"

(6) Final printed labeling. (i) Except as provided in paragraph (a)(6)(ii) of this section, final printed labeling must be submitted and accepted prior to registration. However, final printed labeling need not be submitted until draft label texts have been provisionally accepted by the Agency.

(ii) Clearly legible reproductions or photo reductions will be accepted for unusual labels such as those silk-screened directly onto glass or metal containers or large bag or drum labels. Such reproductions must be of microfilm reproduction quality.

(b) Name, brand, or trademark. (1) The name, brand, or trademark under which the pesticide product is sold shall appear on the front panel of the label.

(2) No name, brand, or trademark may appear on the label which:

(i) Is false or misleading, or

(ii) Has not been approved by the Administrator through registration or supplemental registration as an additional name pursuant to § 162.6(b)(4).

(c) Name and address of producer, registrant, or person for whom produced. An unqualified name and address given on the label shall be considered as the name and address of the producer. If the registrant's name appears on the label and the registrant is not the producer, or if the name of the person for whom the pesticide was produced appears on the label, it must be qualified by appropriate wording such as "Packed for ***," "Distributed by ***," or "Sold by ***" to show that the name is not that of the producer.

(d) Net weight or measure of contents. (1) The net weight or measure of content shall be exclusive of wrappers or other materials and shall be the average content unless explicitly stated as a minimum quantity.

(2) If the pesticide is a liquid, the net content statement shall be in terms of liquid measure at 68°F (20°C) and shall be expressed in conventional American units of fluid ounces, pints, quarts, and gallons.

(3) If the pesticide is solid or semisolid, viscous or pressurized, or is a mixture of liquid and solid, the net content statement shall be in terms of weight expressed as avoirdupois pounds and ounces.

(4) In all cases, net content shall be stated in terms of the largest suitable units, i.e., "1 pound 10 ounces" rather than "26 ounces."

(5) In addition to the required units specified, net content may be expressed in metric units.

(6) Variation above minimum content or around an average is permissible only to the extent that it represents deviation unavoidable in good manufacturing practice. Variation below a stated minimum is not permitted. In no case shall the average content of the packages in a shipment fall below the stated average content.

(e) Product registration number. The registration number assigned to the pesticide product at the time of registration shall appear on the label, preceded by the phrase "EPA Registration No.," or the phrase "EPA Reg. No." The registration number shall be set in type of a size and style similar to other print on that part of the label on which it appears and shall run parallel to it. The registration number and the required identifying phrase shall not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency.

(f) Producing establishments registration number. The producing establishment registration number preceded by the phrase "EPA Est.", of the final establishment at which the product was produced may appear in any suitable location on the label or immediate container. It must appear on the wrapper or outside container of the package if the EPA establishment registration number on the immediate container cannot be clearly read through such wrapper or container.

(g) Ingredient statement--(1) General. The label of each pesticide product must bear a statement which contains the name and percentage by weight of each active ingredient, the total percentage by weight of all inert ingredients; and if the pesticide contains arsenic in any form, a statement of the percentages of total and water-soluble arsenic calculated as elemental arsenic. The active ingredients must be designated by the term "active ingredients" and the inert ingredients by the term "inert ingredients," or the singular forms of these terms when appropriate. Both terms shall be in the same type size, be aligned to the same margin and be equally prominent. The statement "Inert Ingredients, none" is not required for pesticides which contain 100 percent active ingredients. Unless the ingredient statement is a complete analysis of the pesticide, the term "analysis" shall not be used as a heading for the ingredient statement.

(2) Position of ingredient statement. (i) The ingredient statement is normally required on the front panel of the label. If there is an outside container or wrapper through which the ingredient statement cannot be clearly read, the ingredient statement must also appear on such outside container or wrapper. If the size or form of the package makes it impracticable to place the ingredient statement on the front panel of the label, permission may be granted for the ingredient statement to appear elsewhere.

(ii) The text of the ingredient statement must run parallel with other text on the panel on which it appears, and must be clearly distinguishable from and must not be placed in the body of other text.

(3) Names to be used in ingredient statement. The name used for each ingredient shall be the accepted common name, if there is one, followed by the chemical name. The common name may be used alone only if it is well known. If no common name has been established, the chemical name alone shall be used. In no case will the use of a trademark or proprietary name be permitted unless such name has been accepted as a common name by the Administrator under the authority of Section 25(c)(6).

(4) Statements of percentages. The percentages of ingredients shall be stated in terms of weight-to-weight. The sum of percentages of the active and the inert ingredients shall be 100. Percentages shall not be expressed by a range of values such as "22-25%." If the uses of the pesticide product are expressed as weight of active ingredient per unit area, a statement of the weight of active ingredient per unit volume of the pesticide formulation shall also appear in the ingredient statement.

(5) Accuracy of stated percentages. The percentages given shall be as precise as possible reflecting good manufacturing practice. If there may be unavoidable variation between manufacturing batches, the value stated for each active ingredient shall be the lowest percentage which may be present.

(6) Deterioration. Pesticides which change in chemical composition significantly must meet the following labeling requirements:

(i) In cases where it is determined that a pesticide formulation changes chemical composition significantly, the product must bear the following statement in a prominent position on the label: "Not for sale or use after [date]."

(ii) The product must meet all label claims up to the expiration time indicated on the label.

(7) Inert ingredients. The Administrator may require the name of any inert ingredient(s) to be listed in the ingredient statement if he determines that such ingredient(s) may pose a hazard to man or the environment.

(h) Warnings and precautionary statements. Required warnings and precautionary statements concerning the general areas of toxicological hazard including hazard to children, environmental hazard, and physical or chemical hazard fall into two groups; those required on the front panel of the labeling and those which may appear elsewhere. Specific requirements concerning content, placement, type size, and prominence are given below.

(1) Required front panel statements. With the exception of the child hazard warning statement, the text required on the front panel of the label is determined by the Toxicity Category of the pesticide. The category is assigned on the basis of the highest hazard shown by any of the indicators in the table below:

Hazard indicators	Toxicity categories			
	I	II	III	IV
Oral LD_{50}	Up to and including 50 mg/kg	From 50 thru 500 mg/kg	From 500 thru 5000 mg/kg	Greater than 5000 mg/kg
Inhalation LC_{50}	Up to and including .2 mg/liter	From .2 thru 2 mg/liter	From 2 thru 20 mg/liter	Greater than 20 mg/liter
Dermal LD_{50}	Up to and including 200 mg/kg	From 200 thru 2000	From 2,000 thru 20,000	Greater than 20,000
Eye effects	Corrosive; corneal opacity not reversible within 7 days	Corneal opacity reversible within 7 days; irritation persisting for 7 days	No corneal opacity; irritation reversible within 7 days	No irritation
Skin effects	Corrosive	Severe irritation at 72 hours	Moderate irritation at 72 hours	Mild or slight irritation at 72 hours

(i) Human hazard signal word.--(A) Toxicity Category I. All pesticide products meeting the criteria of Toxicity Category I shall bear on the front panel the signal word "Danger." In addition if the product was assigned to Toxicity Category I on the basis of its oral, inhalation or dermal toxicity (as distinct from skin and eye local effects) the word "Poison" shall appear in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word "poison."

(B) Toxicity Category II. All pesticide products meeting the criteria of Toxicity Category II shall bear on the front panel the signal word "Warning."

(C) Toxicity Category III. All pesticide products meeting the criteria of Toxicity Category III shall bear on the front panel the signal word "Caution."

(D) Toxicity Category IV. All pesticide products meeting the criteria of Toxicity Category IV shall bear on the front panel the signal word "Caution."

(E) Use of signal words. Use of any signal word(s) associated with a higher Toxicity Category is not permitted except when the Agency determines that such labeling is necessary to prevent unreasonable adverse effects on man or the environment. In no case shall more than one human hazard signal word appear on the front panel of a label.

(ii) Child hazard warning. Every pesticide product label shall bear on the front panel the statement "keep out of reach of children." Only in cases where the likelihood of contact with children during distribution, marketing, storage or use is demonstrated by the applicant to be extremely remote, or if the nature of the pesticide is such that it is approved for use on infants or small children, may the Administrator waive this requirement.

(iii) Statement of practical treatment--(A) Toxicity Category I. A statement of practical treatment (first aid or other) shall appear on the front panel of the label of all pesticides falling into Toxicity Category I on the basis of oral, inhalation or dermal toxicity. The Agency may, however, permit reasonable variations in the placement of the statement of practical treatment is some reference such as "See statement of practical treatment on back panel" appears on the front panel near the word "Poison" and the skull and crossbones.

(B) Other toxicity categories. The statement of practical treatment is not required on the front panel except as described in paragraph (h)(1)(iii)(A) of this section. The applicant may, however, include such a front panel statement at his option. Statements of practical treatment are, however, required elsewhere on the label in accord with paragraph (h)(2) of this section if they do not appear on the front panel.

(iv) Placement and prominence. All the required front panel warning statements shall be grouped together on the label, and shall appear with sufficient prominence relative to other front panel text and graphic material to make them unlikely to be overlooked under customary conditions of purchase and use. The following table shows the minimum type size requirements for the front panel warning statements on various sizes of labels:

Size of label front panel in square inches	Points	
	Required signal word, all capitals	"Keep out of reach of Children"
5 and under	6	6
Above 5 to 10	10	6
Above 10 to 15	12	8
Above 15 to 30	14	10
Over 30	18	12

(2) Other required warnings and precautionary statements. The warnings and precautionary statements as required below shall appear together on the label under the general heading "Precautionary Statements" and under appropriate subheadings of "Hazard to Humans and Domestic Animals," "Environmental Hazard" and "Physical or Chemical Hazard."

(i) Hazard to humans and domestic animals. (A) Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. The precautionary paragraph shall be immediately preceded by the appropriate hazard signal word.

(B) The following table depicts typical precautionary statements. These statements must be modified or expanded to reflect specific hazards.

Toxicity category	Precautionary statements by toxicity category	
	Oral, inhalation, or dermal toxicity	Skin and eye local effects
I . . .	Fatal (poisonous) if swallowed [inhaled or absorbed through skin]. Do not breathe vapor [dust] or spray mist]. Do not get in eyes, on skin, or on clothing [Front panel statement of practical treatment required.].	Corrosive, causes eye and skin damage [or skin irritation]. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Harmful or fatal if swallowed. [Appropriate first aid statement required.]
II . . .	May be fatal if swallowed [inhaled or absorbed through the skin]. Do not breathe vapors [dust or spray mist]. Do not get in eyes, on skin, or on clothing. [Appropriate first aid statements required.].	Causes eye [and skin] irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed. [Appropriate first aid statement required.].
III . . .	Harmful if swallowed [inhaled or absorbed through the skin]. Avoid breathing vapors [dust or spray mist]. Avoid contact with skin [eyes or clothing]. [Appropriate first aid statement required.].	Avoid contact with skin, eyes or clothing. In case of contact immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.
IV . . .	[No precautionary statements required.].	[No precautionary statements required.].

(ii) Environmental hazards. Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury or damage. Examples of the hazard statements and the circumstances under which they are required follow:

(A) If a pesticide intended for outdoor use contains an active ingredient with a mammalian acute oral LD_{50} of 100 or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(B) If a pesticide intended for outdoor use contains an active ingredient with a fish acute LC_{50} of 1 ppm or less, the statement "This Pesticide is Toxic to Fish" is required.

(C) If a pesticide intended for outdoor use contains an active ingredient with an avian acute oral LD_{50} of 100 mg/kg or less, or a subacute dietary LC_{50} of 500 ppm or less, the statement "This Pesticide is Toxic to Wildlife" is required.

(D) If either accident history or field studies demonstrate that use of the pesticide may result in fatality to birds, fish or mammals, the statement "This pesticide is extremely toxic to wildlife (fish)" is required.

(E) For uses involving foliar application to agricultural crops, forests, or shade trees, or for mosquito abatement treatments, pesticides toxic to pollinating insects must bear appropriate label cautions.

(F) For all outdoor uses other than aquatic applications the label must bear the caution "Keep out of lakes, ponds or streams. Do not contaminate water by cleaning of equipment or disposal of wastes."

(iii) Physical or chemical hazards. Warning statements on the flammability or explosive characteristics of the pesticide are required as follows:

Flash point	Required text
(A) PRESSURIZED CONTAINERS	
Flash point at or below 20°F; if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
Flash point above 20°F and not over 80°F or if the flame extension is more than 18 in. long at a distance of 6 in. from the flame.	Flammable. Contents under pressure. Keep away from heat, sparks, and open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
All other pressurized containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
(B) NONPRESSURIZED CONTAINERS	
At or below 20°F	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
Above 20°F and not over 80°F	Flammable. Keep away from heat and open flame.
Above 80°F and not over 150°F	Do not use or store near heat or open flame.

(i) Directions for Use--(1) General requirements--(i) Adequacy and clarity of directions. Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment.

(ii) Placement of directions for use. Directions may appear on any portion of the label provided that they are conspicuous enough to be easily read by the user of the pesticide product. Directions for use may appear on printed or graphic matter which accompanies the pesticide provided that:

(A) If required by the Agency, such printed or graphic matter is securely attached to each package of the pesticide, or placed within the outside wrapper or bag;

(B) The label bears a reference to the directions for use in accompanying leaflets or circulars, such as "See directions in the enclosed circular." and

(C) The Administrator determines that it is not necessary for such directions to appear on the label.

(iii) Exceptions to requirement for direction for use--(A) Detailed directions for use may be omitted from labeling of pesticides which are intended for use only by manufacturers of products other than pesticide products in their regular manufacturing processes, provided that:

(1) The label clearly shows that the product is intended for use only in manufacturing processes and specifies the type(s) of products involved.

(2) Adequate information such as technical data sheets or bulletins, is available to the trade specifying the type of product involved and its proper use in manufacturing processes;

(3) The product will not come into the hands of the general public except after incorporation into finished products; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(B) Detailed directions for use may be omitted from the labeling of pesticide products for which sale is limited to physicians, veterinarians, or druggists, provided that:

(1) The label clearly states that the product is for use only by physicians or veterinarians;

(2) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment; and

(3) The product is also a drug and regulated under the provisions of the Federal Food, Drug and Cosmetic Act.

(C) Detailed directions for use may be omitted from the labeling of pesticide products which are intended for use only by formulators in preparing pesticides for sale to the public, provided that:

(1) There is information readily available to the formulators on the composition, toxicity, methods of use, applicable restrictions or limitations, and effectiveness of the product for pesticide purposes;

(2) The label clearly states that the product is intended for use only in manufacturing, formulating, mixing, or repacking for use as a pesticide and specifies the type(s) of pesticide products involved;

(3) The product as finally manufactured, formulated, mixed, or repackaged is registered; and

(4) The Administrator determines that such directions are not necessary to prevent unreasonable adverse effects on man or the environment.

(2) Contents of Directions for Use. The directions for use shall include the following, under the headings "Directions for Use":

(i) The statement of use classification as prescribed in 162.10(j) immediately under the heading "Directions for Use."

(ii) Immediately below the statement of use classification, the statement "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."

(iii) The site(s) of application, as for example the crops, animals, areas, or objects to be treated.

(iv) The target pest(s) associated with each site.

(v) The dosage rate associated with each site and pest.

(vi) The method of application, including instructions for dilution, if required, and type(s) of application apparatus or equipment requried.

(vii) The frequency and timing of applications necessary to obtain effective results without causing unreasonable adverse effects on the environment.

(viii) Specific limitations on reentry to areas where the pesticide has been applied, meeting the requirements concerning reentry provided by 40 CFR Part 170.

(ix) Specific directions concerning the storage and disposal of the pesticide and its container, meeting the requirements of 40 CFR Part 165. These instructions shall be grouped and appear under the heading "Storage and Disposal." This heading must be set in type of the same minimum sizes as required for the child hazard warning (See Table in § 162.10(h)(1)(iv).)

(x) Any limitations or restrictions on use required to prevent unreasonable adverse effects, such as:

(A) Required intervals between application and harvest of food or feed crops.

(B) Rotational crop restrictions.

(C) Warnings as required against use on certain crops, animals, objects, or in or adjacent to certain areas.

(D) [Reserved]

(E) For restricted use pesticides, a statement that the pesticide may be applied under the direct supervision of a certified applicator who is not physically present at the site of application but nonetheless available to the person applying the pesticide, unless the Agency has determined that the pesticide may only be applied under the direct supervision of a certified applicator who is physically present.

(F) Other pertinent information which the Administrator determines to be necessary for the protection of man and the environment.

(j) Statement of Use Classification. By October 22, 1976, all pesticide products must bear on their labels a statement of use classification as described in paragraphs (j)(1) and (2) of this section. Any pesticide product for which some uses are classified for general use and others for restricted use shall be separately labeled according to the labeling standards set forth in this subsection, and shall be marketed as separate products with different registration numbers, one bearing directions only for general use(s) and the other bearing directions for restricted use(s) except that, if a product has both restricted use(s) and general use(s), both of these uses may appear on a product labeled for restricted use. Such products shall be subject to the provisions of § 162.10(j)(2).

(1) General Use Classification. Pesticide products bearing directions for use(s) classified general shall be labeled with the exact words "General Classification" immediately below the heading "Directions for Use." And reference to the general classification that suggests or implies that the general utility of the pesticide extends beyond those purposes and uses contained in the Directions for Use will be considered a false or misleading statement under the statutory definitions of misbranding.

(2) Restricted Use Classification. Pesticide products bearing direction for use(s) classified restricted shall bear statements of restricted use classification on the front panel as described below:

(i) Front panel statement of restricted use classification. (A) At the top of the front panel of the label, set in type of the same minimum sizes as required for human hazard signal words (see table in § 162.10(h)(1)(iv)), and appearing with sufficient prominence relative to other text and graphic material on the front panel to make it unlikely to be overlooked under customary conditions of purchase and use, the statement "Restricted Use Pesticide" shall appear.

(B) Directly below this statement on the front panel, a summary statement of the terms of restriction imposed as a precondition to registration shall appear. If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification." If, however, other regulatory restrictions are imposed, the Administrator will define the appropriate wording for the terms of restriction by regulation.

(k) Advertising. [Reserved]

[40 FR 28268, July 3, 1975; 40 FR 32329, Aug. 1, 1975; 40 FR 38571, Aug. 21, 1975, as amended at 43 FR 5786, Feb. 9, 1978]

PHYS/CHEM-1

PHYSICAL/CHEMICAL HAZARDS

Criteria	Required Label Statement
I. Pressurized Containers	
A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening.	Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
C. All Other Pressurized Containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
II. Non-Pressurized Containers	
A. Flashpoint at or below 20°F.	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
B. Flashpoint above 20°F and not over 80°F.	Flammable. Keep away from heat and open flame.
C. Flashpoint over 80°F and not over 150°F.	Do not use or store near heat and open flame.
D. Flashpoint above 150°F.	None required.

STOR-1

STORAGE INSTRUCTIONS FOR PESTICIDES

Heading:

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL."

Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.

2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.

3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.

4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.

5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.

6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

PESTICIDE DISPOSAL INSTRUCTIONS

The label of all products, except those intended solely for domestic use, must bear explicit instructions about pesticide disposal. The statements listed below contain the exact wording that must appear on the label of these products.

1. The labels of all products, except domestic use, must contain the statement:

   "Do not contaminate water, food, or feed by storage or disposal."

2. Except those products intended solely for domestic use, the labels of all products that contain active ingredients that are Acute Hazardous Wastes or are assigned to Toxicity Category I on the basis of oral or dermal toxicity, or Toxicity Category I or II on the basis of acute inhalation toxicity must bear the following pesticide disposal statement:

   "Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

3. The labels of all products, except those intended for domestic use, containing active or inert ingredients that are Toxic Hazardous Wastes or meet any of the criteria in 40 CFR 261, Subpart C for a hazardous waste must bear the following pesticide disposal statement:

   "Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance."

4. Labels for all other products, except those intended for domestic use, must bear the following pesticide disposal statement:

   "Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility."

5. Products intended for domestic use only must bear the following disposal statement:

   "Securely wrap original container in several layers of newspaper and discard in trash."

CONTAINER DISPOSAL INSTRUCTIONS

The label of each product must bear container disposal instructions appropriate to the type of container.

1. Domestic use products must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. All other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording)

1/ Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

APPENDIX III

USE INDEX

EPA Compendium of Acceptable Uses

DALAPON

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TYPE PESTICIDE: Herbicide

FORMULATIONS:
G (10%)
Impr (25.5%)

GENERAL WARNINGS AND LIMITATIONS: A selective herbicide used to control broadleaf weeds and grasses in cranberry bogs and noncrop areas. Do not apply directly to bodies of water by cleaning of equipment or disposal of wastes. Wastes resulting from the use of this chemical may be disposed of on site or at an approved waste disposal facility.

Agricultural Crop Tolerances (other than those listed in the text):

Almonds	10.0 ppm
Almonds, hulls	50.0 ppm
Apples	3.0 ppm
Apricots	1.0 ppm
Asparagus	30.0 ppm
Avocados	0.2 ppm
Bananas	5.0 ppm
Beans	1.0 ppm
Beans, straw	1.0 ppm
Beets, sugar (roots)	5.0 ppm
Beets, sugar (tops)	5.0 ppm
Citrus fruits	0.2 ppm
Citrus, pulp, dehydrated (CT.F)	20.0 ppm
Coffee beans	2.0 ppm
Corn, ear, dried (K+C)	10.0 ppm
Corn, fodder	5.0 ppm
Corn, forage	5.0 ppm
Corn, fresh (including sweet K+CWHR)	5.0 ppm
Corn, grain	10.0 ppm
Cottonseed	35.0 ppm
Cucurbits	0.5 ppm
Flaxseed	75.0 ppm
Fruits, pome	0.2 ppm
Fruits, small	0.2 ppm
Grain crops (excluding wheat)	0.5 ppm
Grapefruit	5.0 ppm
Grapes	3.0 ppm
Grasses, forage	2.0 ppm
Grasses, pasture	10.0 ppm
Grasses, range	10.0 ppm
Hops	0.2 ppm
Legumes, forage	2.0 ppm
Lemons	5.0 ppm
Limes	5.0 ppm
Macadamia nuts	1.0 ppm
Nuts	0.2 ppm
Oranges	5.0 ppm
Peaches	15.0 ppm
Pears	3.0 ppm

*2,2-dichloropropionic acid

GENERAL WARNINGS AND LIMITATIONS (continued)

Peas, shelled	15.0 ppm
Peas, unshelled	15.0 ppm
Peas, vine, with pod	15.0 ppm
Peas, vine, without pod	15.0 ppm
Pecans	0.1 ppm
Pineapples	3.0 ppm
Plums	1.0 ppm
Potatoes	10.0 ppm
Sorghum	1.0 ppm
Sorghum, forage	5.0 ppm
Soybeans	1.0 ppm
Soybeans, straw	1.0 ppm
Sugarcane	0.1 ppm
Tangerines	5.0 ppm
Vegetables, fruiting	0.2 ppm
Vegetables, leafy	0.5 ppm
Vegetables, root crop	0.2 ppm
Vegetables, seed and pod	0.5 ppm
Walnuts	5.0 ppm
Water, potable	0.2 ppm
Wheat	2.0 ppm
Livestock Tolerances:	
Cattle, meat	0.2 ppm
Cattle, mbyp	0.2 ppm
Eggs	0.3 ppm
Goats, meat	0.2 ppm
Goats, mbyp	0.2 ppm
Hogs, meat	0.2 ppm
Hogs, mbyp	0.2 ppm
Milk	0.1 (N) ppm
Poultry (excluding kidney)	3.0 ppm
Poultry, kidney	9.0 ppm
Sheep, meat	0.2 ppm
Sheep, mbyp	0.2 ppm

TIME REQUIRED FOR CONTROL: Not located.

PHYTOTOXICITY TO TARGET WEEDS: Growth inhibition, leaf chlorosis and leaf necrosis.

PHYTOTOXICITY TO CROPS: Not located.

MODE OF ACTION: Interferes with meristematic activity of root tips and apical meristems. Reduces wax formation on leaf surfaces and alters cell membranes.

BROADLEAF WEEDS CONTROLLED:

PEAAGBV	Arrowleafed tearthumb	(a)
PBFAKAA	Aster	(a)
PBFAOAA	Beggarsticks	(a)
PBYABBA	Common bogbean	(a)
PBGADAA	Dodder	(a)
PBFBXAA	Hawkweed	(a)
PEAAGAC	Knotweed	(a)
PEAAGBP	Ladysthumb	(a)
PZAAABA	Little hairgrass	(a)
PEAAGBK	Marshpepper smartweed	(a)
PZAAACE	Muskrat grass	(a)
PEAAGBO	Pennsylvania smartweed	(a)
PDXABAA	Plantain	(a)
PBFAEAA	Ragweed	(a)
PEAAHBB	Red sorrel	(a)
PZAAAAZ	Short wiregrass	(a)
PEAAGAD	Smartweed	(a)
PEAAGBG	Swamp smartweed	(a)
PZAAADE	Tideland clover	(a)
PELAKBC	Virginia strawberry	(a)
PEAAGBB	Water smartweed	(a)
PZAAABM	Western lilaeopsis	(a)
PZAAABB	Wideleaf grass	(a)

(a) In cranberry bogs.

GRASSES AND OTHER MONOCOTS CONTROLLED:

PCAADAA	Bentgrass	(a)
PCAAZBA	Bermudagrass	
PCACKAA	Bluegrass	
PCAAVBA	Bluejoint reedgrass	(a)
PCABRBA	Common velvetgrass	(a)
PBMAJAA	Cottongrass	(a)
PCABFAA	Crabgrass	(a)
PCABMAA	Fescue	
PCYAEAA	Loosetrife	(a)
PCQBDBA	Marsh peavine	(a)
PCBABBD	Marsh St. Johnswort	(a)
PCADAAA	Needlegrass	(a)
PBMADAA	Nutsedge	(a)
PCADBGA	Oniongrass	(a)
PCABOBB	Rattlesnakegrass	(a)
PCABXBB	Rice cutgrass	(a)
PCAADBB	Rough bentgrass	(a)
PCLABAA	Rush	(a)
PCABGBA	Seashore saltgrass	(a)
PMXABAA	Sedge	(a)
PCAAXAB	Stargrass	(a)
PCABMBE	Tall fescue	(a)
PBMAGBE	Woolgrass bulrush	(a)

GRASSES AND OTHER MONOCOTS CONTROLLED (continued)

PCADKAA	Zoysia	

(a) In cranberry bogs.

WOODY PLANTS CONTROLLED:

PBHABAA	Dogwood	(a)

(a) In cranberry bogs.

NONFLOWERING PLANTS CONTROLLED:

PEBAHBC	Brackenfern	(a)
PBTABBA	Field horsetail	(a)
PFBABAA	Haircap moss	(a)
PEOABBB	Royal fern	(a)
PEBAEBA	Sensitive fern	(a)
PBTABBB	Water horsetail	(a)

(a) In cranberry bogs.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	TERRESTRIAL FOOD CROP	
	(Agricultural Crops)	
/01010AA	Cranberry Bogs	5.0 ppm Do not apply more than 15 pounds active ingredient per acre per year. General Information: Temporary reddening of cranberry plants may occur with a late spring application or when applied to sandy bogs. Do not use on young beds less than 1 year old, newly seeded beds, or on bogs prior to or immediately after mowing for vines. Do not apply after bud opening (popcorn).
	[SLN][MAI] 5-15 (10% G)	SLN - Use limited to OR and WA. Broadcast. Apply in March. Use the higher dosage in heavily weed infested or abandoned bogs. Distribute granules uniformly over area to be treated. Formulated with dichlorobenil.
	TERRESTRIAL NONFOOD CROP	
	(Ornamental Plants and Forest Trees)	
/31000AA	Flower Beds	
/33010AA	Lawn Borders	
/32001AA	Ornamental Trees and Shrubs	
		Refer to (Noncrop, Wide Area, and General Indoor/Outdoor Treatments), Driveways/Sidewalks cluster, for pest and use information.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	(Noncrop, Wide Area, and General Indoor/Outdoor Treatments)	
/670110A /670150A /670120A /31000AA /33010AA /32001AA	Driveways/Sidewalks Fences Patios	General Information: Do not use on desirable lawn areas. Some browning along edges of treated areas will occur.
	9.5 (25.5% Impr)	Edging or spot treatment. Rub impregnated bar lightly over unwanted grass. Two treatments will give seasonal control. A single bar will treat an area 2 inches wide by 7,000 feet long.

DALAPON

Listing of Registered Pesticide Products by Formulation

&010.0004 10% granular
dalapon (028901) plus 2,6-dichlorobenzonitrile (027401)
OR830066 WA830045

&025.5010 25.5% impregnated materials
dalapon (028901)
000602-00156

9999999 State Label Registrations

HI Reg. No.
035052-05466 037843-08541

EPA Compendium of Acceptable Uses

DALAPON

Appendix A-1

Listing of Active Ingredient(s) Found in Combination with the Report Chemical

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
027401	dichlorobenil	2,6-dichlorobenzonitrile

-- Use Common Name

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DALAPON, SODIUM SALT

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Alfalfa 4
Apples 4
Apricot 4
Apricot (non-bearing) 4
Asparagus 5
Banana 6
Beans (field, kidney, lima, snap) 6
Birdsfoot Trefoil (for seed production only) 7
Bluegrass (lawns) 22
Christmas Tree Plantations 22
Citrus Fruits 7
Coffee 8
Corn 8
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Peach (non-bearing) 12

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DALAPON, SODIUM SALT

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Plum (bearing)	14
Plum (non-bearing)	14
Potato	14
Prune (bearing)	14
Prune (non-bearing)	14
Rangeland	21
Sorghum	15
Soybean	15
Sugar Beets	16
Sugarcane	18
Taro (paddy banks)	26
Walnuts	20
Wheat	20

DALAPON, SODIUM SALT*

TYPE PESTICIDE: Herbicide

FORMULATIONS:
Tech (85%, 92.52%)
WP (21.2%)
Impr (25.5%)
SC/S (53.3%, 72.5%, 85%)

GENERAL WARNINGS AND LIMITATIONS: A selective herbicide used to control grasses and certain aquatic weeds in agricultural crops, noncrop areas, aquatic areas, and forest plantings. Do not apply directly to lakes, streams, or ponds, or contaminate water sources by cleaning of equipment or disposal of wastes. Wastes resulting from the use of this chemical may be disposed of on site or at an approved waste disposal facility. Use an approved agricultural surfactant or spreader sticker with each application to improve wetting of foliage and grass control. For annual grasses, add 0.5 to 2 pints of surfactant per 100 gallons of finished spray. For perennial grasses, add 4 pints of surfactant per 100 gallons of finished spray. In noncrop areas, control of perennial grasses may be improved by using more than 4 pints of surfactant per 100 gallons of finished spray. Apply after a rain or irrigation when soil moisture is high and plants are actively growing. In warm, moist soils chemical breakdown occurs in 3 to 5 weeks. In cold or dry soils with little or no organic matter breakdown occurs in 5 to 8 weeks. Keep spray off agricultural crop foliage and fruit. Do not spray the bare soil under fruit trees. This chemical may inhibit seed germination and plant growth for 30 days or more depending on the dosage, soil type, temperature, and rainfall. Per acre rates are for broadcast treatments unless otherwise noted. For band or spot treatments, the dosages should be reduced proportionally. Rainfall of half an inch or more will help to move the herbicide into the soil so that microbial degradation (breakdown) will take place. Wait 5 days after rain before planting susceptible crops. Do not use tank mix sprays containing 2,4,5-T esters on ditchbanks, around homes, or recreation areas. In tank mix sprays, use no more than 6.8 pounds active ingredient in 10 gallons of water.
Agricultural Tolerances (other than those in text):

Almonds	10.0 ppm
Almonds, hulls	50.0 ppm
Avocados	0.2 ppm
Cucurbits	0.5 ppm
Hops	0.2 ppm
Nuts	0.2 ppm
Vegetables, fruiting	0.2 ppm
Vegetables, leafy	0.5 ppm
Water, potable	0.2 ppm

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*2,2-dichloropropionic acid, sodium salt

GENERAL WARNINGS AND LIMITATIONS (continued)

Livestock Tolerances:

Cattle, meat	0.2 ppm
Cattle, mbyp	0.2 ppm
Eggs	0.3 ppm
Goats, meat	0.2 ppm
Goats, mby	0.2 ppm
Hogs, meat	0.2 ppm
Hogs, mbyp	0.2 ppm
Milk	0.1 (N) ppm
Poultry (excluding kidney)	3.0 ppm
Poultry, kidney	9.0 ppm
Sheep, meat	0.2 ppm
Sheep, mbyp	0.2 ppm

TIME REQUIRED FOR CONTROL: Not located.

PHYTOTOXICITY TO TARGET WEEDS: Growth inhibition, leaf chlorosis, and leaf necrosis.

PHYTOTOXICITY TO CROPS: Not located.

MODE OF ACTION: Interferes with meristematic activity of root tips and apical meristems. Reduces wax formation on leaf surfaces, and alters cell membranes.

BROADLEAF WEEDS CONTROLLED:

PAAAAAC	Broadleaf weeds

GRASSES AND OTHER MONOCOTS CONTROLLED:

PZAAAAA	Amargo
PCAARBC	Alexandergrass
PCACKBA	Annual bluegrass
PCAAAAB	Annual grasses
PCABHBB	Barnyardgrass
PCAAZBA	Bermudagrass
PCACKAA	Bluegrass
PEXABAA	Burreed
PCABFAA	Crabgrass
PCAAAAG	Cutgrass
PCACFBC	Dallisgrass
PCACUAA	Foxtail
PCAADBB	Gamolategrass
PCACUBA	Giant foxtail
PCAAAAA	Grasses (seedling)
PCACUBF	Green foxtail
PCACEBH	Guineagrass
PCACOBA	Itchgrass

GRASSES AND OTHER MONOCOTS CONTROLLED (continued)

PCACWBC	Johnsongrass
PCACWBC	Johnsongrass (rhizome) (seedling)
PCACGBA	Kikuyugrass
PCACEBG	Maidencane
PCABFBB	Pangolagrass
PCAARBB	Paragrass
PCAAAAC	Perennial grasses
PAAAABL	Povertygrass
PCAACBA	Quackgrass
PCAADBB	Rough bentgrass
PZAAACN	Round rush
PCLABAA	Rush
PBMABAA	Sedge
PCACYBG	Smutgrass
PCABMBE	Tall fescue
PCACEBK	Torpedograss
PCACFBI	Vaseygrass
PZAAADL	Wamsy
PCACEBN	Warty panicum
PZAAABB	Wideleaf grass
PCAAOBB	Wild oats
PCACEBC	Witchgrass
PCACUBD	Yellow foxtail
PCADKAA	Zoysia

AQUATIC WEEDS CONTROLLED:

PFDABAA	Cattail
PCACJAA	Phragmites

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	TERRESTRIAL FOOD CROP	
	(Agricultural Crops)	
/23001AA	Alfalfa	2.0 ppm (legumes, forage)
	6.8 (85% SC/S)	Spring preplant. Broadcast to land to be planted to alfalfa. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait at least 4 days after spraying before plowing, and another 4 to 5 weeks before planting. May be applied by air in 5 to 10 gallons of water per acre.
	12.7 (85% SC/S)	Fall preplant. Broadcast to land to be planted to alfalfa the following spring. For control of quackgrass. Treated areas can be plowed in 10 to 20 days or plowing can be delayed until spring. May be applied by air in 5 to 10 gallons of water per acre.
	4.25-5.95 (85% SC/S)	Preplant. Retreatment spray. Make 3 applications at 10 to 20 day intervals in 40 to 50 gallons of water per acre. Plow and plant 2 weeks after the third spray.
/04001AA /04003AA	Apples Pears	3.0 ppm (apples, pears) 30 day preharvest interval. Do not graze livestock on treated areas.
	4.25-8.50 (85% SC/S) [MAI] 3.63-7.25 (72.5% SC/S)	Postemergence. Broadcast, band, or spot treatment. Use the lower dosage on trees less than 4 years old and the higher dosage on trees at least 4 years old. Apply in the spring when grasses are growing but before seed heads form. Make 1 to 2 applications per season. May be formulated with dalapon, magnesium salt.
/05001AA /05001DA	Apricot Apricot (non-bearing)	1.0 ppm 30 day preharvest interval. Do not graze livestock on treated areas. General Information: Apply to areas under irrigation.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Apricot cluster (continued)	
	5.10-5.95 (85% SC/S) [MAI] 4.35-5.07 (72.5% SC/S)	Use limited to western areas of the United States. Broadcast, band, or spot treatment. Apply to grasses growing beneath apricot trees. Make 1 to 2 applications per season. May be formulated with dalapon, magnesium salt.
/16002AA	Asparagus	30 ppm General Information: During the cutting season, spray immediately after cutting. Use no more than 1 pint of surfactant per 100 gallons of finished spray with the multiple formulations. Postharvest sprays must be directed under the fern growth to avoid crop injury. Use enough water to provide uniform wetting of the grass. Spot spray patches of grass with 0.85 pound of active ingredient in 10 gallons of water.
	8.5-17.0 (85% SC/S) [MAI] 7.25-14.5 (72.5% SC/S)	Preharvest and postharvest. Directed spray. For control of quackgrass. Use the lower dosage before harvest and again 3 to 4 weeks later. Use the higher dosage as a single treatment before or after harvest. May be formulated with dalapon, magnesium salt.
	17.0 (85% SC/S) [MAI] 14.5 (72.5% SC/S)	Preharvest and postharvest. Directed spray. For control of bermudagrass. Apply during or after harvest season. Make a second application as needed. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/06002AA	Banana	5.0 ppm Do not apply more than 25.5 pounds active ingredient per acre per year.
	5.1-12.7 (85% SC/S) 003125-00259 [MAI] 7.25-10.87 (72.5% SC/S)	Postemergence. Broadcast. For control of amargo, gamalotegrass, and guineagrass. Apply when grasses are actively growing but before seed heads form. Repeat applications, usually spot treatments, should be made 4 to 6 weeks later. Spray to wet all weed foliage, do not allow runoff. May be formulated with dalapon, magnesium salt.
/15027AA	Beans (field, kidney, lima, snap)	1.0 ppm (beans, straw) Do not graze livestock on treated areas. General Information: If soil is unusually dry after plowing or discing wait 5 to 7 weeks before planting.
	4.25-5.95 (85% SC/S) [MAI] 3.62-5.07 (72.5% SC/S)	Spring preplant. Broadcast. For control of johnsongrass. Apply when the grass is 8 to 12 inches tall. Wait 3 days after treatment then plow or deep disc. Wait at least 5 days after plowing or discing before planting. May be applied by air. May be formulated with dalapon, magnesium salt.
	6.8-12.7 (85% SC/S) [MAI] 5.8-10.8 (72.5% SC/S)	Spring or fall preplant. For control of quackgrass. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air. Apply the lower dosage in the spring when the grass is 4 to 6 inches tall. Wait 4 days then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. Use the higher dosage in the fall (September or October). Plow or deep disc 10 days after application. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/23011BA	Birdsfoot Trefoil (for seed production only)	Tolerance Not Located. Do not graze livestock on treated fields or feed forage, hay or chaff.
	2.55-4.25 (85% SC/S) [MAI] 2.17-3.62 (72.5% SC/S)	Use limited to MI, NY and VT. Broadcast. Apply in the fall or early spring, in 20 to 30 gallons of water per acre, when weeds are 4 to 6 inches tall. May be formulated with dalapon, magnesium salt.
/02000AA	Citrus Fruits	5.0 ppm (grapefruit, lemons, limes, oranges, tangerines) 20.0 ppm (citrus, pulp, dehydrate (ct.f)) General Information: Make up to 6 applications per growing season in orange, grapefruit, tangerine and lime groves. Use low rate on very light soil. Do not use in groves under drought stress, diseased, in decline, or suffering from cold damage. In AZ and CA spray up to half the area over the root zone of the citrus trees.
	(groves) 1.7-3.4 (85% SC/S) [MAI] 1.4-2.9 (72.5% SC/S)	Postemergence. Broadcast or spot treatment. Apply to the grove floor in 50 to 100 gallons of water when grasses are actively growing but before seed heads form. In FL and TX make up to 3 applications per season at 2 to 10 day intervals. In AZ and CA use spot treatments at 4 to 8 day intervals. May be formulated with dalapon, magnesium salt.
	(ditches, borders) 4.2-8.5 (85% SC/S) [MAI] 3.6-7.2 (72.5% SC/S)	Broadcast or spot treatment. Apply in 100 gallons of water. Spray to wet all weed foliage, do not allow runoff. If needed, make a second application in 1 to 2 weeks. May be applied by air. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/07002AA	Coffee	2.0 ppm (coffee beans) 8 month preharvest interval. Do not make more than 2 applications in one crop year.
	8.5 (85% SC/S) 000400-00150 [MAI] 7.25 (72.5% SC/S)	Use limited to HI and PR. Postemergence. Directed spray. Spray to wet all weed foliage, do not allow runoff. Do not exceed 100 gallons of finished spray per acre. Apply to grasses prior to seed head formation. Make a second application 4 to 6 weeks later or when regrowth occurs. May be formulated with dalapon, magnesium salt.
/28005AA	Corn	5 ppm (corn, fresh [including sweet, (K+CWHR)]) (corn, forage) (corn, fodder) 10 ppm (corn, grain) (corn, ear, dried (K+C)) Do not graze livestock on treated areas during application season. General Information: This treatment will not control unemerged seedling grasses.
	4.25-5.95 (85% SC/S) [MAI] 3.62-5.07 (72.5% SC/S)	Spring preplant. Broadcast. For control of johnsongrass. Apply when the grass is 8 to 12 inches tall. Wait 3 days after treatment then plow or deep disc. Wait at least 5 days after plowing or discing before planting. May be applied by air. May be formulated with dalapon, magnesium salt.
	6.8-12.7 (85% SC/S) [MAI] 5.8-10.8 (72.5% SC/S)	Spring or fall preplant. Broadcast. For control of quackgrass. Use the lower dosage as a spring preplant and the higher dosage as a fall preplant. Apply when grass is 4 to 6 inches tall. Wait 4 days after treatment then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. May be applied by air. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Corn (continued)	
	0.42 (85% SC/S)	Early postemergence. Broadcast or band. Apply when grasses are less than 1.5 inches tall and corn is in the spike to 4-leaf stage. Use leaf lifters and spray the lower half of the corn stalks. Tank mix with atrazine or 2,4-D.
	0.56 (85% SC/S)	Postemergence. Directed spray. Apply when corn is 8 to 20 inches tall. Use leaf lifters and spray the lower half of the corn stalks but no higher than 7 inches above the ground. Do not use on corn grown for seed. Tank mix with 2,4-D.
/28007AA	Cotton	75 ppm (cottonseed) Do not graze livestock on treated areas during application season. General Information: This treatment will not control unemerged seedling grasses. The use of spray hoods, shields, and/or fenders may be needed to prevent the spray from contacting cotton foliage.
	4.25-5.95 (85% SC/S) [MAI] 3.62-5.07 (72.5% SC/S)	Spring preplant. Broadcast. For control of johnsongrass. Apply when grass is 8 to 12 inches tall. Cotton can then be planted without further delay. May be applied by air. Make 3 additional applications at 10 to 20 day intervals. May be formulated with dalapon, magnesium salt.
	0.85 (85% SC/S) [MAI] 0.72 (72.5% SC/S)	Postemergence. Spot treatment. For control of perennial grasses. Make up to 3 applications per season. May be formulated with dalapon, magnesium salt.
	4.25 (85% SC/S) [MAI] 3.62 (72.5% SC/S)	Use limited to western areas of the United States. Layby application. Direct spray. Apply under cotton plants after last tillage. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Cotton (continued)	
	[SLN][MAI] 3.62 (72.5% SC/S)	SLN - Use limited to LA and MS. Layby application. Directed spray. For control of bermudagrass. Apply in 40 to 50 gallons of water per acre. Formulated with dalapon, magnesium salt.
	[SLN][MAI] 3.62 (72.5% SC/S)	SLN - Use limited to MS. Postharvest. Broadcast. Apply 5 days after first picking in 10 to 50 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air. Formulated with dalapon, magnesium salt.
/01010AA	Cranberry Bogs	5.0 ppm (cranberries) 60 day preharvest interval. General Information: This treatment may reduce the next season's crop.
	1.7 (85% SC/S) 003125-00259 [MAI] 1.4 (72.5% SC/S)	Swab treatment. Postemergence. Apply in 5 gallons of water per acre as soon as grasses appear above the vines. Make 2 applications at 2-week intervals. Do not make more than 2 applications per growing season. May be formulated with dalapon, magnesium salt.
	8.5 (85% SC/S) [MAI] 7.25 (72.5% SC/S)	Vine treatment. Postharvest. Broadcast. Apply in 300 gallons of water per acre in October or early November. May be formulated with dalapon, magnesium salt.
/01010MB	(irrigation and drainage ditches) 17 (85% SC/S) [MAI] 14.5 (72.5% SC/S)	Shore treatment. Broadcast. Apply in early June when weeds are actively growing but before seed heads form in 200 to 300 gallons of water per acre. Make a second application as needed but no later than July 31. Do not spray cranberry foliage. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/28009AA	Flax	75 ppm (flax, seeds) General Information: Use no more than 0.5 pint of surfactant per 100 gallons of spray. Poor grass control and injury to flax may occur if applied during periods of drought. Do not apply under drought conditions unless crop injury can be tolerated.
	0.85 (85% SC/S) [MAI] 0.725 (72.5% SC/S)	Postemergence. Broadcast. For control of foxtail. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air when flax is 1 to 6 inches tall and foxtail is 1 to 2 inches tall. Tank mix with MCPA or 2,4-D to control broadleaf weeds. May be formulated with dalapon, magnesium salt.
/01014AA	Grape (bearing)	3.0 ppm (grape) 30 day preharvest interval. Do not graze livestock on treated areas. General Information: Keep spray out of irrigation furrows. Do not use in young non-bearing vineyards.
	8.5 (85% SC/S) [MAI] 7.25 (72.5% SC/S)	Use limited to AZ and CA. Broadcast or band. Apply 30 inch bands centered on vine rows. Do not make more than 2 applications in one growing season. Make the first application in late spring when new growth of bermudagrass is 4 to 6 inches tall, or johnsongrass is 12 to 18 inches tall. Retreat 4 to 6 weeks later. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/03007AA	Macadamia Nut	1.0 ppm (macadamia nut) Do not exceed 20.4 pounds active ingredient per acre per year. Do not exceed 100 gallons of finished spray per acre. General Information: Do not spray directly on fallen nuts. During harvest period, spray immediately after gleaning nuts from the ground.
	0.42-1.02 (85% SC/S) [MAI] 0.36-0.72 (72.5% SC/S)	Use limited to HI. Preharvest. Broadcast. Spray to wet all weed foliage, do not allow runoff. Retreatment may be necessary. May be formulated with dalapon, magnesium salt.
	[SLN][MAI] 7.25 (72.5% SC/S)	SLN - Use limited to HI. Preharvest. Broadcast. Spray to wet all weed foliage, do not allow runoff. Retreatment may be necessary. Formulated with dalapon, magnesium salt.
/24003AA /24007AA	Oats	0.5 ppm (grain crops (exc. wheat))
	6.8 (85% SC/S)	Spring preplant. Broadcast to land to be planted to oats or wheat. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait at least 4 days after spraying before plowing, and another 4 to 5 weeks before planting. May be applied by air.
/05004AA /05004DA	Peach (bearing) Peach (non-bearing)	15 ppm (peach) 30 day preharvest interval. Do not graze livestock on treated areas during application season.
	5.10-5.95 (85% SC/S) [MAI] 4.35-5.07 (72.5% SC/S)	Use limited to western areas of the United States. Postemergence. Broadcast, band or spot treatment. Apply in the spring when grasses are actively growing but before seed heads form. Spray grasses under peach trees. Make 1 or 2 applications per growing season. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Peach (bearing) cluster (continued)	
	0.85-2.97 (85% SC/S) [MAI] 1.45-2.53 (72.5% SC/S)	Use limited to areas other than western areas of the United States. Postemergence. Broadcast, band or spot treatment. Apply in 20 gallons of water per acre in the spring when grasses are actively growing but before seed heads form. Apply up to 70 gallons of finished spray per acre. Make 1 to 2 applications per growing season. May be formulated with dalapon, magnesium salt.
	Pears	See Apples cluster.
/28016AA	Peas	15 ppm (peas, vines with/without pod) (peas, unshelled, shelled) 25 day preharvest interval. Fresh pea vines or pea silage may be fed to livestock but do not feed pea vine hay.
	0.85 (85% SC/S) [MAI] 0.725 (72.5% SC/S)	Postemergence. Broadcast. For control of grasses (seedling). Apply when peas are 2 to 6 inches tall. May be tank mixed with dinoseb. May be formulated with dalapon, magnesium salt.
/03008AA /03008DA	Pecans (bearing) Pecans (non-bearing)	0.2 ppm (nuts)
	[SLN][MAI] 7.25-14.5 (72.5% SC/S)	SLN - Use limited to AZ. Directed spray or spot treatment. For control of bermudagrass and johnsongrass. Make no more than 3 applications per year. Do not apply the final fall application closer to harvest than 2 weeks before shuck split. Formulated with dalapon, magnesium salt.
/06013AA	Pineapples	3.0 ppm 30 day preharvest interval.
	7.2-8.5 (85% SC/S)	Postemergence. Spot treatment. For control of annual and perennial grasses.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/05005AA /05005DA /05006AA /05006DA	Plum (bearing) Plum (non-bearing) Prune (bearing) Prune (non-bearing)	1.0 ppm (plum) 30 day preharvest interval. Do not graze livestock on treated areas during application season. General Information: Apply to areas under irrigation.
	5.10-5.95 (85% SC/S) 000464-00164 [MAI] 4.35-5.07 (72.5% SC/S)	Use limited to western areas of the United States. Postemergence. Broadcast, band or spot treatment. Spray grass under trees. Apply in the spring when grasses are actively growing but before seed heads form. Make 1 to 2 applications per season. May be formulated with dalapon, magnesium salt.
/14013AA	Potato	10 ppm (potato) Do not graze livestock on treated areas. General Information: Do not use on land planted to or to be planted to red-skinned potato varieties or White Rose potatoes. Do not spray potato foliage.
	6.8 (85% SC/S) [MAI] 5.8 (72.5% SC/S)	Spring preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc and plant. May be applied by air. May be formulated with dalapon, magnesium salt.
	12.7 (85% SC/S) [MAI] 10.8 (72.5% SC/S)	Fall preplant. Broadcast. For control of quackgrass. Apply in September or October when grass is 4 to 6 inches tall. Wait 10 to 20 days after application then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. May be applied by air. May be formulated with dalapon, magnesium salt.
	2.55-8.50 (85% SC/S) [MAI] 2.17-7.25 (72.5% SC/S)	Preemergence. Broadcast. Use the lower dosage to control grasses (seedling) and the higher dosage to control quackgrass. Do not apply after potatoes emerge. May be applied by air. May be tank mixed with dinoseb. May be formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Potato (continued)	
	4.25 (85% SC/S)	Layby application. Directed spray. Apply in 15 to 20 gallons of water per acre when grass seedlings have germinated but before they are 3 inches tall. Use a vine lifter and spray the base of the potato plants.
	Prune	See Plum cluster.
/28019AA /28023AA	Sorghum	1.0 ppm (sorghum) 5.0 ppm (sorghum, forage) Do not graze livestock on treated areas. General Information: This treatment will not control unemerged seedling grasses.
	4.25-5.95 (85% SC/S) [MAI] 3.62-5.07 (72.5% SC/S)	Spring preplant. For control of johnsongrass (seedling). Apply when grass is 8 to 12 inches tall. Wait 3 days after application then plow or deep disc. Wait at least 5 to 17 days after plowing or discing before planting. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air. Make 3 retreatment sprays 10 to 20 days apart. May be formulated with dalapon, magnesium salt.
/28023AA	Soybean	1.0 ppm (soybean, straw) Refer to Sorghum for pest, use and limitation information.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/28020AA	Sugar Beets	5.0 ppm (beets, sugar, root, tops) Do not graze livestock on treated areas. General Information: Do not apply when temperature is above 85 F (29.4 C). Using more than 1 pint of surfactant per 100 gallons of spray may improve grass control but also may increase the risk of crop injury. As much as 6.8 pounds active ingredient per acre may be used for control of wild oats and quackgrass but may injure sugar beet plants. The 4.25 to 6.8 pounds active ingredient rate should be applied only by ground equipment as a spray directed away from the sugar beet plants. For aerial application, use at least 5 gallons of finished spray per acre. Use of thiocarbamate herbicides may increase the risk of injury to sugar beets when applied to a postemergence application of dalapon, sodium salt. Environmental conditions that cause poor growth or reduce sugar of sugar beets such as unusually cold or wet weather, drought stress, insect or disease attack, poor nutrition, or high concentrations of salts in the soil may increase risk of injury as well. Therefore, do not apply dalapon, sodium salt postemergence to sugar beets following a preplant application of a thiocarbamate herbicide or if the crop is growing under adverse environmental conditions. May be tank mixed with pyrazon to control broadleaf weeds as well as grasses (seedling).
	6.8 (85% SC/S)	Spring preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Sugar beets may be planted immediately after plowing. May be applied by air.
	[MAI] 5.8 (72.5% SC/S)	May be formulated with dalapon, magnesium salt.

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Sugar Beets (continued)	
8.5-12.7 (85% SC/S) [MAI] 10.8 (72.5% SC/S)	Fall preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. May be applied by air. May be formulated with dalapon, magnesium salt.
1.7-6.8 (85% SC/S) [MAI] 1.45-2.90 (72.5% SC/S)	Postemergence. Broadcast or directed spray. For control of grasses (seedling), quackgrass, and wild oats. Apply from sugar beet plant emergence through the 6-leaf stage. May be applied by air. Use the higher dosage as a directed spray to control quackgrass and wild oats. Sugar beet tops (or roots) may be fed to livestock following this application. May be formulated with dalapon, magnesium salt.
2.55-4.25 (85% SC/S) [MAI] 2.17-3.62 (72.5% SC/S)	Postemergence. Directed spray. Using leaf lifters, apply to grasses when sugar beet plants are in the 6-leaf stage until they are 14 inches tall. Do not spray sugar beet foliage. Sugar beet tops (or roots) may be fed to livestock following this application. May be formulated with dalapon, magnesium salt.
[MAI] 2.54 (21.2% WP)	Early postemergence. Broadcast or band. Apply in 40 gallons of water per acre when sugar beet plants have 2 expanded true leaves and weeds have no more than 2 to 4 true leaves. Do not use a broadcast treatment in dry, irrigated regions. Do not apply when sugar beet foliage is wet. Formulated with pyrazon.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/25003AA	Sugarcane	0.1 ppm 5 month preharvest interval.
	3.4-8.5 (85% SC/S)	Preemergence or directed postemergence. Broadcast, band, or drill. For control of alexandergrass, bermudagrass, and johnsongrass. Spray to wet all weed foliage, do not allow runoff.
	3.4 (85% SC/S) [MAI] 2.9 (72.5% SC/S)	Use limited to FL and PR. Postemergence. Directed spray. Apply in the spring before sugarcane close-in in 20 to 40 gallons of water per acre. Reapply 2 to 3 times as needed. Do not apply more than 120 gallons of finished spray per acre. May be formulated with dalapon, magnesium salt.
	8.5 (85% SC/S) [MAI] 7.25 (72.5% SC/S)	Use limited to FL and PR. Postemergence. Spot treatment. Apply before sugarcane close-in in 100 gallons of water per acre. Repeat as needed. Do not apply more than 120 gallons of finished spray per acre. May be formulated with dalapon, magnesium salt.
	2.55-3.40 (85% SC/S) [MAI] 2.17-2.90 (72.5% SC/S)	Use limited to HI. Postemergence. Directed spray. Apply after planting or ratooning. Make 2 to 3 additional applications as needed prior to close-in. Do not apply more than 17 pounds active ingredient per acre during the 24 to 36 month crop cycle. May be formulated with dalapon, magnesium salt.
	8.50 (85% SC/S) [MAI] 7.25 (72.5% SC/S)	Use limited to HI. Postemergence. Spot treatment. Apply before close-in in 100 gallons of water per acre. Repeat as needed. Do not apply more than 17 pounds active ingredient per acre during the 24 to 36 month crop cycle. May be formulated with dalapon, magnesium salt.

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Sugarcane (continued)	
1.91-2.12 (85% SC/S) [MAI] 1.63-1.81 (72.5% SC/S)	Use limited to LA. Cane stubble treatment. Broadcast or band. For control of bermudagrass and johnsongrass. Use the higher dosage in 10 to 20 gallons of water per acre by ground and the lower dosage in 3 to 5 gallons of water per acre by air. Reapply in 2 to 3 weeks as needed. Apply before May 20 to avoid cane injury. May be formulated with dalapon, magnesium salt.
0.85-2.04 (85% SC/S) [MAI] 0.72-1.74 (72.5% SC/S)	Use limited to LA. Cane treatment. Broadcast or band. For control of actively growing grasses (seedling). Use the higher dosage in 10 to 20 gallons of water per acre by ground and the lower dosage in 3 to 5 gallons of water per acre by air. Reapply in 2 to 3 weeks as needed. Apply before May 20 to avoid cane injury. May be formulated with dalapon, magnesium salt.
[SLN][MAI] 1.45-4.35 (72.5% SC/S)	SLN - Use limited to LA. Cane stubble treatment. Broadcast or band. For control of johnsongrass (rhizome). Apply in the early spring when grass is less than 14 inches tall. May be applied in 3 to 5 gallons of water per acre by air. Formulated with dalapon, magnesium salt.
[SLN][MAI] 4.35 (72.5% SC/S)	SLN - Use limited to LA. Preplant. Broadcast or band. For control of bermudagrass, itchgrass, and johnsongrass (seedling). Apply in the spring when grass is less than 6 inches tall. Formulated with dalapon, magnesium salt.
[SLN][MAI] 4.35-5.80 (72.5% SC/S)	SLN - Use limited to LA. Summer preplant. Broadcast. For control of johnsongrass. Apply when grass is less than 24 inches tall but before seed heads form. Wait 7 days after application to prepare seedbeds, and 2 weeks before planting. Formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/03009AA	Walnuts	5.0 ppm (walnuts) 30 day preharvest interval.
	[SLN][MAI] 2.9-3.6 (72.5% SC/S)	SLN - Use limited to CA. Directed spray. Use the lower dosage for control of annual grasses and the higher dosage for control of perennial grasses. Apply when grasses are one-fourth to one-third of their mature height, but before boot stage. Avoid contact with foliage. Formulated with dalapon, magnesium salt.
/24007AA	Wheat	2.0 ppm Refer to Oats for pest, use and limitation information.
	TERRESTRIAL NONFOOD CROP	
	(Agricultural Crops)	
/66002DA	Fallowland (grain stubble)	Do not graze livestock on treated areas. General Information: This treatment will not control unemerged seedling grasses. Do not use on land planted to or to be planted to red-skinned potato varieties or White Rose potatoes.
	4.25-5.95 (85% SC/S) 050534-00055 [MAI] 3.62-5.07 (72.5% SC/S)	Preplant. Broadcast. For control of established bermudagrass, johnsongrass and quackgrass. Apply during the growing season prior to planting beans, corn, cotton, potatoes, sorghum, soybean, and sugar beets. Make 2 to 3 applications 2 to 3 weeks apart. May be applied by air. May be formulated with dalapon, magnesium salt.
	[SLN][MAI] 2.17-2.90 (72.5% SC/S)	SLN - Use limited to ID and OR. Broadcast to summer fallowland to be planted to winter wheat. Tank mix with atrazine or cyanazine. Apply to stubble following fall rains after weeds begin to grow but before April 1. Apply once per year. Do not plant spring cereal crops. Formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Fallowland (grain stubble) (continued)	
	[SLN][MAI] 3.62 (72.5% SC/S)	SLN - Use limited to WA. Broadcast to summer fallowland to be planted to cereal crops. Apply in the late fall or winter after weeds begin to grow but before April 1. Apply once per year. Do not plant cereal crops until the late summer following treatment. May be tank mixed with atrazine. Mixtures with atrazine should be applied before January 1. Formulated with dalapon, magnesium salt.
/28035AA /38045AA	Pastureland Rangeland	10 ppm (grasses, pasture) (grasses, range) When less than 10 percent of the pasture area is treated, livestock grazing need not be discontinued. For unmowed pastures. Do not graze meat animals on treated pastures until 8 weeks after treatment and withhold grazing on treated areas for 1 week before slaughter. Do not graze lactating dairy animals on treated pastures until 14 weeks after treatment. For mowed pastures. Mow 2 to 4 weeks after treatment if desired. Do not graze lactating or meat animals on treated pastures until 4 weeks after mowing. Do not harvest hay from treated pastures during the season of application. General Information: Pasturelands include established perennial grasses such as pangolagrass, bermudagrass, bahiagrass, dallisgrass and fescue. Pastures recover most rapidly if mowed, are adequately fertilized, ample moisture is made available, and other good management practices are followed. Desirable perennial pasture (such as white clover) may be temporarily reduced in stand or vigor but spring-treated pastures usually recover within 2 to 4 months under favorable conditions. Fall-treated pastures usually recover the following spring under good management and favorable conditions. Any annual grasses present may be seriously injured or killed. Use only the lower rate on bahiagrass pastures since it is more sensitive and may suffer considerable reduction under

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Pastureland cluster (continued)	
		unfavorable conditions. Do not sow grass seed until 2 to 4 weeks after treatment. Species such as annual ryegrass can be fall seeded to provide winter pasture. Delay grazing for 10 weeks or longer after treatment allowing adequate time for sufficient growth to sustain grazing.
	3.4-5.1 (85% SC/S) [MAI] 2.9-4.3 (72.5% SC/S)	Use limited to GA, HI, SC and the Gulf Coast States. Broadcast. For control of smutgrass. May be applied by air. May be formulated with dalapon, magnesium salt.
	0.85 (85% SC/S) [MAI] 4.35 (72.5% SC/S)	Spot treatment. For control of smutgrass. Apply in 16 to 100 gallons of water to thoroughly wet smutgrass foliage. May be formulated with dalapon, magnesium salt.
	(Ornamental Plants and Forest Trees)	
/33019AA	Bluegrass (lawns)	
	[MAI] 0.79 lb a.i./5,000 sq.ft (72.5% SC/S)	Spot treatment. For control of tall fescue. Spray to wet all weed foliage, do not allow run-off. Repeat as necessary. Formulated with dalapon, magnesium salt.
/30005AA /30002AA	Christmas Tree Plantations	
	3.4-12.7 (85% SC/S) [MAI] 2.9-10.8 (72.5% SC/S)	Preplant. Broadcast. Use the lower dosage to control annual grasses (seedling) and the higher dosage to control perennial grasses. Apply in the spring when grasses are actively growing. Apply to perennial grasses before seed heads form and to annual grasses (seedling) no later than early tillering stage. Wait at least 2 weeks after application before planting forest seedlings. May be applied by air. May be tank mixed with 2,4-D alkanolamine salt; 2,4-D esters; 2,4,5-T esters; or triclopyr, triethylamine salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Christmas Tree Plantations (continued)	
		May be formulated with dalapon, magnesium salt.
	[SLN][MAI] 2.1-4.3 (72.5% SC/S)	SLN - Use limited to ID, MT, OR and WA. Do not apply within 12 months of Christmas tree harvest. Broadcast. Apply after planting or to existing stands. Apply in 10 to 40 gallons of water per acre by ground or by air. May be applied in the fall after conifers harden off until 3 weeks before conifers break bud. Do not apply over conifers without tank mixing with atrazine. Tank mix with atrazine. May be tank mixed with 2,4-D esters; silvex; or triclopyr, triethylamine salt. Do not apply the 2,4-D esters tank mix to pine trees. Formulated with dalapon, magnesium salt.
	[SLN][MAI] 2.9-5.8 (72.5% SC/S)	SLN - Use limited to ID, MT and OR. Directed spray. Apply in 10 to 40 gallons of water per acre. May be tank mixed with atrazine or 2,4-D esters; silvex; or triclopyr, triethylamine salt. Formulated with dalapon, magnesium salt.
/33028AA /33030AA	Dichondra (ground cover) English Ivy (ground cover)	General Information: Applications to English Ivy are limited to CA. Apply to mature dichondra. Do not use on newly seeded or newly transplanted areas. If areas have not been fertilized, apply fertilizer and water thoroughly 5 to 7 days before application. Use a sprayer with an insecticide nozzle to produce a fine mist.
	0.53-2.12 lb a.i./5,000 sq.ft (85% SC/S) [MAI] 0.45 lb a.i./5,000 sq.ft (72.5% SC/S)	Broadcast or spot treatment. For control of annual bluegrass, bermudagrass and crabgrass. Apply in the spring or summer when weed grasses are actively growing. May be formulated with dalapon, magnesium salt.

DALAPON, SODIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/31000AA /33010AA /32001AA	Flower Beds Lawn Borders Ornamental Trees and Shrubs	Refer to (Noncrop, Wide Area, and General Indoor/Outdoor Treatments), Driveways/Sidewalks cluster for pest, use and limitation information.
/33010AA	Ornamental Lawns	General Information: Mow dead vegetation before treatment.
	2.12 lb a.i./5,000 sq.ft (85% SC/S) [MAI] 1.81 lb a.i./5,000 sq.ft (72.5% SC/S)	Lawn renovation treatment. Broadcast. Wait 2 weeks for new grass growth then apply in 20 gallons of water per 5,000 square feet. After 2 to 3 weeks water grass at least 15 minutes a day for 1 week. Wait 4 to 6 weeks to seed, plug or sprig. May be formulated with dalapon, magnesium salt.
	(Noncrop, Wide Area, and General Indoor/Outdoor Treatments)	
/67011DA /67015DA /67012DA /31000AA /33010AA /32001AA	Driveways/Sidewalks Fences Patios	General Information: Do not use on desirable lawn areas. Some browning along edges of treated areas will occur.
	9.5 (25.5% Impr)	Edging or spot treatment. Rub impregnated bar lightly over unwanted grass. Make 2 applications per growing season. Refer to Noncrop Areas for additional use information.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/670000A	Noncrop Areas	Do not use around small shrubs, newly planted trees, or trees less than 4 years old. General Information: Noncrop Areas include areas around railroad ballast, rights-of-way, and berm areas, tennis courts, industrial sites, service stations, and other noncrop areas. May be applied by ground or, where feasible, by air.
	4.25-8.50 (85% SC/S)	Broadcast or spot treatment. For control of giant foxtail, and grasses (seedling). Apply in 50 to 100 gallons of water and spray to wet foliage. Repeat as needed.
	8.5-25.5 (85% SC/S) [MAI] 2.9-21.7 (72.5% SC/S)	Broadcast or spot treatment. Use the lower dosage in 100 gallons of water with an orchard-type spray gun to control bermudagrass, johnsongrass, cattail, and phragmites. Use the higher dosage in 40 gallons of water per acre with a spray boom. Spray cattails and phragmites after new sprouts are 2 to 3 feet tall. Apply a fall spray to cattails during catkin development. Do not exceed 300 gallons of finished spray per acre. Repeat application in 2 to 3 weeks and follow up with spot treatments as needed. May be tank mixed with 2,4-D; 2,4-D alkanolamine salt; 2,4-D esters; 2,4,5-T esters; silvex; or triclopyr, triethylamine salt. May be formulated with dalapon, magnesium salt.
	2.12 lb a.i./5,000 sq.ft (85% SC/S) [MAI] 1.81 lb a.i./5,000 sq.ft (72.5% SC/S)	Broadcast or spot treatment. Apply with a sprayer, sprinkler can, or hose proportioner to wet all foliage, do not allow runoff. May be formulated with dalapon, magnesium salt.

DALAPON, SODIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Noncrop Areas (continued)	
	0.21 lb a.i./gal of water (85% SC/S) [MAI] 0.09 lb a.i./gal of water (72.5% SC/S)	Broadcast. For control of annual grasses, perennial grasses, and cattails. Apply early in the season when grasses are actively growing and cattail and phragmites shoots are 2 to 3 feet tall. May be tank mixed with 2,4-D or silvex. May be formulated with dalapon, magnesium salt.
	[MAI] 9.78 (72.5% SC/S)	Spot treatment. Apply in 100 gallons of water and spray to wet all foliage, do not allow runoff. Repeat as needed. May be tank mixed with 2,4-D alkanolamine salt; 2,4-D esters; 2,4,5-T esters; or triclopyr, triethylamine salt. Formulated with dalapon, magnesium salt.

AQUATIC FOOD CROP

(Agricultural Crops)

/14006MB	Taro (paddy banks)	Tolerance Not Located. Do not apply less than 7 days before planting. General Information: Do not allow treated water to drain into adjacent paddies or waterways.
	[SLN][MAI] 10.8 (72.5% SC/S)	SLN - Use limited to HI. Preplant. For control of cattails. Use 100 gallons of finished spray per acre with a spray boom, or 300 gallons of finished spray per acre with a hand-gun sprayer. Apply when cattails are 2 to 3 feet tall or during catkin development. Repeat as needed. Formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	AQUATIC NONFOOD CROP	
	(Aquatic Sites)	
/65013MB /65012MB	Drainage Ditches Industrial Waste Disposal Systems	Do not use in or around potable water or irrigation water sources. General Information: Industrial waste disposal systems include areas around waste water treatment systems, and phosphate ponds/pits.
	4.25-8.50 (85% SC/S)	Broadcast or spot treatment. For control of giant foxtail, and grasses (seedling). Apply in 50 to 100 gallons of water and spray to wet foliage. Repeat as needed.
	8.5-25.5 (85% SC/S) [MAI] 2.9-21.7 (72.5% SC/S)	Broadcast or spot treatment. Use the lower dosage in 100 gallons of water with an orchard-type spray gun to control bermudagrass, johnsongrass, cattail, and phragmites. Use the higher dosage in 40 gallons of water per acre with a spray boom. Spray cattails and phragmites after new sprouts are 2 to 3 feet tall. Apply a fall spray to cattails during catkin development. Do not exceed 300 gallons of finished spray per acre. Repeat application in 2 to 3 weeks and follow up with spot treatments as needed. May be tank mixed with 2,4-D; 2,4-D alkanolamine salt; 2,4-D esters; 2,4,5-T esters; silvex; or triclopyr, triethylamine salt. May be formulated with dalapon, magnesium salt.
	2.12 lb a.i./5,000 sq.ft (85% SC/S) [MAI] 1.81 lb a.i./5,000 sq.ft (72.5% SC/S)	Broadcast or spot treatment. Apply with a sprayer, sprinkler can, or hose proportioner to wet all foliage, do not allow runoff. May be formulated with dalapon, magnesium salt.

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Drainage Ditches cluster (continued)	
0.21 lb a.i./gal of water (85% SC/S) [MAI] 0.09 lb a.i./gal of water (72.5% SC/S)	Broadcast. For control of annual grasses, perennial grasses, and cattails. Apply early in the season when grasses are actively growing and cattail and phragmites shoots are 2 to 3 feet tall. May be tank mixed with 2,4-D or silvex. May be formulated with dalapon, magnesium salt.
[MAI] 9.78 (72.5% SC/S)	Spot treatment. Apply in 100 gallons of water and spray to wet all foliage, do not allow runoff. Repeat as needed. May be tank mixed with 2,4-D alkanolamine salt; 2,4-D esters; 2,4,5-T esters; or triclopyr, triethylamine salt. Formulated with dalapon, magnesium salt.
[SLN][MAI] 9.78-21.7 (72.5% SC/S)	SLN - Use limited to FL. For control of cattails and perennial grasses. Apply in 50 gallons of water per acre by ground or by airboat, or 10 to 20 gallons of water per acre by air. For control of cattails, apply before or during catkin development. Repeat as needed. Formulated with dalapon, magnesium salt.
/65021MB Irrigation Ditchbanks	Do not permit fishing in treated waterways within 12 months of treatment. General Information: Always begin spraying at the downstream end of section to be treated and work upstream. Do not spray across stream, thereby minimizing spray contact to water surface. Do not spray both banks simultaneously. Do not spray more than 2 miles of the same ditchbank carrying less than 50 cubic feet of water per second during any 24 hour period.
[MAI] 0.09 lb a.i./gal of water (72.5% SC/S)	Broadcast. For control of cattails and phragmites. Apply in the spring after all shoots have emerged and are 2 to 3 feet tall. A fall treatment to cattails during catkin development may also be applied. May be tank mixed with 2,4-D or silvex. Formulated with dalapon, magnesium salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Irrigation Ditchbanks (continued)	
	[MAI] 9.78 (72.5% SC/S)	Use limited to the western United States. Broadcast. Using a spray boom, apply 100 gallons of finished spray per acre. If browning or dieback does not occur within 3 to 6 weeks, retreatment may be necessary. No waiting period is necessary before water may be used for irrigation purposes. Formulated with dalapon, magnesium salt.
	[MAI] 9.78 (72.5% SC/S)	Use limited to the western United States. Spot treatment. Using a hand spray gun, apply 100 gallons of finished spray per acre to control intermittent infestation. Spray to wet all weed foliage, do not allow runoff. Formulated with dalapon, magnesium salt.

FORESTRY

General Warnings and Limitations: ENDANGERED SPECIES RESTRICTION. Contact the Endangered Species Specialist in the nearest Regional/Field Office of the U.S. Fish and Wildlife Service.

/30002AA	Forest Planting Sites (conifers)	
		Refer to TERRESTRIAL NONFOOD CROP, (Ornamental Plants and Forest Trees), Christmas Tree Plantations for pest and use information.

AERIAL AND TANK MIX APPLICATIONS

9001500 AAAAAAA	Aerial Application	
	--	Refer to TERRESTRIAL FOOD CROP (Agricultural Crops) Alfalfa, Beans, Citrus Fruit, Corn, Cotton, Flax, Oats, Potato, Sorghum, Soybean, Sugar Beets, Sugarcane, Wheat

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Aerial Application (continued)	
	TERRESTRIAL NONFOOD CROP (Agricultural Crops) Fallowland, Pastureland, Rangeland (Ornamental Plants and Forest Trees) Christmas Tree Plantations (Noncrop, Wide Area, and General Indoor/Outdoor Treatments) Noncrop Areas
	AQUATIC NONFOOD CROP (Aquatic Sites) Drainage Ditches, Industrial Waste System Disposals
	FORESTRY Forest Planting Sites (conifers)
9900300 AAAAAAA Tank Mix	
--	Refer to
	TERRESTRIAL FOOD CROP (Agricultural Crops) Citrus Fruits, Flax, Peas, Potato, Sugar Beets
	TERRESTRIAL NONFOOD CROP (Agricultural Crops) Fallowland (grain stubble) (Ornamental Plants and Forest Trees) Christmas Tree Plantations (Noncrop, Wide Area, and General Indoor/Outdoor Treatments) Noncrop Areas
	AQUATIC NONFOOD CROP (Aquatic Sites) Drainage Ditches, Industrial Waste System Disposals, Irrigation Drainage Ditches
	FORESTRY Forest Planting Sites (conifers)

DALAPON, SODIUM SALT

Listing of Registered Pesticide Products by Formulation

&085.0001 85% technical chemical
dalapon, sodium salt (028902)
007969-00023

&092.5201 92.52% technical chemical
dalapon, sodium salt (028902)
039511-00038*
*jacket currently unavailable for review

&021.2006 21.2% wettable powder
dalapon, sodium salt (028902) plus pyrazon (069601)
007969-00008

&025.5010 25.5% impregnated materials
dalapon, sodium salt (028902)
000869-00069 004232-00023

&053.3015 53.3% soluble concentrate/solid
dalapon, sodium salt (028902) plus trichloroacetic acid (081002)
002749-00086*
*jacket currently unavailable for review

&072.5015 72.5% soluble concentrate/solid
dalapon, sodium salt (028902) plus dalapon, magnesium salt (028903)
000464-00402 000464-00473 000829-00233 003442-00814

(000464-00402) AZ770034 CA790148 FL820002 HI790003
HI790014 HI790022 ID800018 ID800032
LA810044 LA840006 MI790016 MS810044
MT820003 OR790058 OR790066 PR800003
SC770006 WA790075 WA810101

&085.0015 85% soluble concentrate/solid
dalapon, sodium salt (028902)
000400-00150 000464-00164 000869-00100 002749-00052
003125-00259 005481-00053 005481-00115 005905-00200
007001-00095 007969-00002 007969-00014 010413-00008*
039511-00037* 050534-00055
*jacket currently unavailable for review

9999999 State Label Registrations

AL Reg. No.
000464-06894 000464-06895

CA Reg. No.
000464-06890 000464-06891 000464-06892 000464-06893
005481-07502

Listing of Registered Pesticide Products by Formulation (continued)

FL Reg. No.
000464-06887 000464-06889 003122-07200 005905-07871
005905-07901 005905-08326

GA Reg. No.
000464-06885 000464-06886

HI Reg. No.
000464-06883 000464-06884 035217-03717

LA Reg. No.
000464-06879 000464-06880 000464-06881

MS Reg. No.
000464-06877 000464-06878

NM Reg. No.
000464-06876

OK Reg. No.
000464-06875

OR Reg. No.
000464-06874

SC Reg. No.
000464-06873

TX Reg. No.
000464-06871 000464-06872

WA Reg. No.
000468-06870

EPA Compendium of Acceptable Uses

DALAPON, SODIUM SALT

Appendix A-1

Listing of Active Ingredient(s) Found in Combination with the Report Chemical

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
028903	dalapon, magnesium salt	--
069601	pyrazon	--
081002	trichloroacetic acid	--

-- Use Common Name

EPA Compendium of Acceptable Uses

DALAPON, SODIUM SALT

Appendix A-2

Listing of Active Ingredient(s) Which May Be Included in Tank Mixes

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
080803	atrazine	--
100101	cyanazine (ISO)	2-[[4-chloro-6-(ethylamino)-S-triazin-2-yl]-amino]-2-methyl propionitrile
030001	2,4-D	2,4-dichlorophenoxyacetic acid
030010	2,4-D, alkanolamine salt	2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and isopropanol series)
030053	2,4-D esters*	2,4-dichlorophenoxyacetic acid, 2-butoxyethyl ester
030056	2,4-D esters*	2,4-dichlorophenoxyacetic acid, butyl ester
030063	2,4-D esters*	2,4-dichlorophenoxyacetic acid, isooctyl ester
030072	2,4-D esters*	2,4-dichlorophenoxyacetic acid, propylene glycol butyl ether ester
037505	DNBP	dinoseb
030501	MCPA	2-methyl-4-chlorophenoxyacetic acid
069601	pyrazon	--
082501	silvex	--
082072	2,4,5-T esters*	2,4,5-trichlorophenoxyacetic acid, 2-butoxyethyl ester

Appendix A-2

Listing of Active Ingredient(s) Which May Be Included in Tank Mixes (continued)

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
116002	triclopyr, triethylamine salt	--

-- Use Common Name
*These names and chemicals are not being included in the 'master' Appendix A.

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DALAPON, MAGNESIUM SALT

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Apples	4
Apricot	4
Asparagus	4
Banana	5
Beans (field, kidney, lima, snap)	5
Birdsfoot Trefoil (for seed production only)	5
Bluegrass (lawns)	17
Christmas Tree Plantations	17
Citrus Fruits	6
Coffee	6
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DALAPON, MAGNESIUM SALT

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h028903

DALAPON, MAGNESIUM SALT*

TYPE PESTICIDE: Herbicide

FORMULATIONS: SC/S (12%)

GENERAL WARNINGS AND LIMITATIONS: A selective herbicide used to control grasses and certain aquatic weeds in agricultural crops, noncrop areas, aquatic areas, and forest plantings. Do not apply directly to lakes, streams, or ponds, or contaminate water sources by cleaning of equipment or disposal of wastes. Wastes resulting from the use of this chemical may be disposed of on site or at an approved waste disposal facility. Use an approved agricultural surfactant or spreader sticker in all applications to improve wetting of foliage and grass control. For annual grasses, add 0.5 to 2 pints of surfactant per 100 gallons of finished spray. For perennial grasses, add 4 pints of surfactant per 100 gallons of finished spray. In noncrop areas, control of perennial grasses may be improved by using more than 4 pints of surfactant per 100 gallons of finished spray. Apply after a rain or irrigation when soil moisture is high and plants are actively growing. In warm, moist soils chemical breakdown occurs in 3 to 5 weeks, in cold or dry soils with little or no organic matter breakdown occurs in 5 to 8 weeks. Keep spray off agricultural crop foliage and fruit. Do not spray the bare soil under fruit trees. This chemical may inhibit seed germination and plant growth for 30 days or more depending on the dosage, soil type, temperature, and rainfall. Per acre rates are for broadcast treatments unless otherwise noted. For band or spot treatments, the dosages should be reduced proportionally. A rain of half an inch or more will help to move the herbicide into the soil so that microbial degradation (breakdown) will take place. Wait 5 days after the rain before planting susceptible crops. Do not use tank mix sprays containing 2,4,5-T esters on ditchbanks, around homes, or recreation areas. In combination sprays, use no more than 0.96 pound active ingredient in 10 gallons of water. All currently registered products are formulated with dalapon, sodium salt.

Agricultural Crop Tolerances (other than those listed in the text):

Almonds	10.0 ppm
Almonds, hulls	50.0 ppm
Avocados	0.2 ppm
Cucurbits	0.5 ppm
Fruits, pome	0.2 ppm
Fruits, stone	0.2 ppm
Grain crops (excluding wheat)	0.5 ppm
Grasses, forage	2.0 ppm
Hops	0.2 ppm
Legumes, forage	2.0 ppm
Nuts	0.2 ppm
Pineapples	3.0 ppm
Vegetables, fruiting	0.2 ppm
Vegetables, leafy	0.5 ppm
Vegetables, root crop	0.5 ppm
Vegetables, seed and pod	0.5 ppm

*2,2-dichloroproprionic acid, magnesium salt

Issued: 6-25-86 I-028903-1
Provisional Update: 7-07-87

GENERAL WARNINGS AND LIMITATIONS (continued)

Water, potable	0.2 ppm
Wheat	2.0 ppm
Livestock Tolerances:	
Cattle, meat	0.2 ppm
Cattle, mbyp	0.2 ppm
Eggs	0.3 ppm
Goats, meat	0.2 ppm
Goats, mbyp	0.2 ppm
Hogs, meat	0.2 ppm
Hogs, mbyp	0.2 ppm
Milk	0.1 (N) ppm
Poultry (excluding kidney)	3.0 ppm
Poultry, kidney	9.0 ppm
Sheep, meat	0.2 ppm
Sheep, mbyp	0.2 ppm

TIME REQUIRED FOR CONTROL: Not located.

PHYTOTOXICITY TO TARGET WEEDS: Growth inhibition, leaf chlorosis, and leaf necrosis.

PHYTOTOXICITY TO CROPS: Not located.

MODE OF ACTION: Interferes with meristematic activity of root tips and apical meristems. Reduces wax formation on leaf surfaces, and alters cell membranes.

BROADLEAF WEEDS CONTROLLED:

PAAAAAC	Broadleaf weeds

GRASSES AND OTHER MONOCOTS CONTROLLED:

PZAAAAA	Amargo
PCACKBA	Annual bluegrass
PCAAAAB	Annual grasses
PCABHBB	Barnyardgrass
PCAAZBA	Bermudagrass
PCACKAA	Bluegrass
PEXABAA	Burreed
PCQAAAB	Clover
PCABFAA	Crabgrass
PCACGBC	Crimson fountaingrass
PCAAAAG	Cutgrass
PCACFBC	Dallisgrass
PCAATBM	Downy brome
PCACUAA	Foxtail
PCAADBB	Gamolategrass

DALAPON, MAGNESIUM SALT

GRASSES AND OTHER MONOCOTS CONTROLLED (continued)

PCACUBA	Giant foxtail
PCAAAAF	Grain (volunteer)
PCAAAAA	Grasses (seedling)
PCACUBF	Green foxtail
PCACEBH	Guineagrass
PCACOBA	Itchgrass
PCACWBC	Johnsongrass (rhizome, seedling)
PCACGBA	Kikuyugrass
PCACEBG	Maidencane
PCABFBB	Pangolagrass
PCACEAA	Panicum
PCAARBB	Paragrass
PCAAAAC	Perennial grasses
PAAAABL	Povertygrass
PCAACBA	Quackgrass
PCAEABE	Rattail fescue
PCACHBA	Reed canarygrass
PCAADBB	Rough bentgrass
PZAAACN	Round rush
PCLABAA	Rush
PBMABAA	Sedge
PCACYBG	Smutgrass
PCABMBE	Tall fescue
PCACEBK	Torpedograss
PCACFBI	Vaseygrass
PZAAADL	Wamsy
PCACEBN	Warty panicum
PCAAOBB	Wild oats
PCACUBD	Yellow foxtail

AQUATIC WEEDS CONTROLLED:

PFDABAA	Cattail
PCACJAA	Phragmites
PBMAGAB	Tules

DALAPON, MAGNESIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	TERRESTRIAL FOOD CROP	
	(Agricultural Crops)	
/04001AA /04003AA	Apples Pears	3.0 ppm (apples, pears) 30 day preharvest interval. Do not graze livestock on treated areas.
	[MAI] 0.6-1.2 (12% SC/S)	Postemergence. Broadcast, band or spot treatment. Use the lower dosage for trees less than 4 years old. Apply in the spring when grasses are growing but before seed heads form. Make 1 to 2 applications per season.
/05001AA	Apricot	1.0 ppm (apricots)
	[MAI] 0.72-0.84 (12% SC/S)	Use limited to western areas of the United States. Broadcast, band or spot treatment. Apply to grasses growing beneath apricot trees.
/16002AA	Asparagus	30 ppm General Information: During the cutting season, spray immediately after cutting and use no more than 1 pint of surfactant per 100 gallons of finished spray. Postharvest sprays must be directed under the fern growth to avoid crop injury. Use enough water to provide uniform wetting of the grass. Spot spray patches of grass with 0.12 pound of active ingredient in 10 gallons of water.
	[MAI] 1.2-2.4 (12% SC/S)	Preharvest and postharvest. Directed spray. For control of quackgrass. Use the lower dosage before harvest and again 3 to 4 weeks later. Use the higher dosage as a single treatment before or after harvest.
	[MAI] 2.4 (12% SC/S)	Preharvest and postharvest. Directed spray. For control of bermudagrass. Apply during or after harvest season. Make a second application as needed.

DALAPON, MAGNESIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/06002AA	Banana	5.0 ppm Do not apply more than 3.6 pounds active ingredient per acre per year. General Information: Keep spray off fruit, foliage, and young plants.
	[MAI] 0.7-1.8 (12% SC/S)	Postemergence. Broadcast. Apply when grasses are actively growing but before seed heads form. Repeat applications, usually spot treatments, should be made 4 to 6 weeks later. Spray to wet all foliage, do not allow runoff.
/15027AA	Beans (field, kidney, lima, snap)	1.0 ppm (beans, straw) Do not graze livestock on treated areas. General Information: If soil is unusually dry after plowing or discing wait 5 to 7 weeks before planting.
	[MAI] 0.96-2.0 (12% SC/S)	Preplant incorporate. For control of quackgrass. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air. Apply the lower dosage in the spring when the grass is 4 to 6 inches tall. Wait 4 days then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. Use the higher dosage in the fall (September or October). Plow or deep disc 10 days after application.
/23011BA	Birdsfoot Trefoil (for seed production only)	Tolerance Not Located. Do not graze livestock on treated fields or feed forage, hay or chaff.
	[MAI] 0.36-0.60 (12% SC/S)	Use limited to MI, NY and VT. Apply in the fall or early spring, in 20 to 30 gallons of water per acre, when weeds are 4 to 6 inches tall.

DALAPON, MAGNESIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/02000AA	Citrus Fruits	0.2 ppm (citrus fruit) 5.0 ppm (grapefruit, lemons, limes, oranges, tangerines) 20.0 ppm (citrus, pulp, dehydrate (ct.f)) General Information: Make up to 6 applications per growing season in orange, grapefruit, tangerine and lime groves. Use low rate on very light soil. Do not use in groves under drought stress, diseased, in decline, or suffering from cold damage. In AZ and CA spray up to half the area over the rootzone of the citrus trees.
	(groves) [MAI] 0.24-0.48 (12% SC/S)	Postemergence. Broadcast or spot treatment. Apply in 50 to 100 gallons of water to the grove floor when grasses are actively growing but before seed heads form. In FL and TX, make up to 3 applications per season at 2 to 10 day intervals. In AZ and CA, use spot treatments at 4 to 8 day intervals.
	(ditches, borders) [MAI] 0.6-1.2 (12% SC/S)	Broadcast or spot treatment. Apply in 100 gallons of water. Spray to wet all foliage, do not allow runoff. Apply by ground or by air. If needed, make a second application in 1 to 2 weeks. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
/07002AA	Coffee	2.0 ppm (coffee beans) 8 month preharvest interval. Do not make more than 2 applications in one crop year.
	[MAI] 0.12 (12% SC/S)	Use limited to HI and PR. Postemergence. Directed spray. Spray to wet all foliage, do not allow runoff. Do not exceed 100 gallons of finished spray per acre. Apply to grasses prior to seed head formation. Make a second application 4 to 6 weeks later or when regrowth occurs.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/28005AA	Corn	5 ppm (corn, fresh [including sweet, (K+CWHR)]) (corn, forage) (corn, fodder) 10 ppm (corn, grain) (corn, ear, dried (K+C)) Do not graze livestock on treated areas during application season. General Information: This treatment will not control unemerged seedling grasses.
	[MAI] 0.6-0.8 (12% SC/S)	Spring preplant. Broadcast. For control of johnsongrass. Apply when the grass is 8 to 12 inches tall. Wait 3 days after treatment then plow or deep disc. Wait at least 5 days after plowing or discing before planting. Can be applied by air.
	[MAI] 1.0-1.8 (12% SC/S)	Spring or fall preplant. Broadcast. For control of quackgrass. Use the lower dosage as a spring preplant and the higher dosage as a fall preplant. Apply when grass is 4 to 6 inches tall. Wait 4 days after treatment then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. Can be applied by air.
/28007AA	Cotton	0.2 ppm (cotton, seed) 75 ppm (cottonseed) Do not graze livestock on treated areas during application season. General Information: This treatment will not control unemerged seedling grasses. The use of spray hoods, shields, and/or fenders may be needed to prevent the spray from contacting cotton foliage.
	[MAI] 0.6-0.8 (12% SC/S)	Spring preplant. Broadcast. For control of johnsongrass. Apply when grass is 8 to 12 inches tall. Wait 3 days then plow and plant. Can be applied by air.
	[MAI] 0.12 (12% SC/S)	Spot treatment. Directed spray. For control of perennial grasses. Make up to 3 times applications per season.
	[MAI] 0.6 (12% SC/S)	Use limited to western areas of the United States. Layby application. Direct spray. Apply under cotton plants after last tillage.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Cotton (continued)	
	[SLN][MAI] 0.6 (12% SC/S)	SLN - Use limited to LA and MS. Layby application. Directed spray. For control of bermudagrass. Apply in 40 to 50 gallons of water per acre.
	[SLN][MAI] 0.6 (12% SC/S)	SLN - Use limited to MS. Postharvest. Broadcast. Apply 5 days after first picking in 10 to 50 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air.
/01010AA	Cranberry Bogs	5.0 ppm (cranberries) 60 day preharvest interval. General Information: This treatment may reduce the next season's crop.
	[MAI] 0.24 (12% SC/S)	Swab treatment. Postemergence. Apply in 5 gallons of water per acre as soon as grasses appear above the vines. Make 2 applications at 2-week intervals. Do not make more than 2 applications per growing season.
	[MAI] 1.2 (12% SC/S)	Vine treatment. Postharvest. Broadcast. Apply in 300 gallons of water per acre in October or early November. Use no more than 0.5 pint of surfactant per 100 gallons of finished spray.
/01010MB	(irrigation and drainage ditches) [MAI] 0.24 (12% SC/S)	Shore treatment. Broadcast. Apply in early June when weeds are actively growing but before seed heads form. Make a second application as needed but no later than July 31. Do not spray cranberry foliage.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/28009AA	Flax	2.0 ppm (flax seed) 75 ppm (flax, seeds) General Information: Use no more than 0.5 pint of surfactant per 100 gallons of spray. Poor grass control and injury to flax may occur if applied during periods of drought. Do not apply under drought conditions unless crop injury can be tolerated.
	[MAI] 0.12 (12% SC/S)	Postemergence. Broadcast. For control of foxtail. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air when flax is 1 to 6 inches tall and foxtail is 1 to 2 inches tall. Tank mix with MCPA to control broadleaf weeds.
/01014AA	Grape	3.0 ppm (grape) 30 day preharvest interval. Do not graze livestock on treated areas. General Information: Keep spray out of irrigation furrows.
	[MAI] 1.2 (12% SC/S)	Use limited to AZ and CA. Band treatment. Apply 30 inch bands centered on vine rows.
/03007AA	Macadamia Nut	1.0 ppm (macadamia nut) Do not exceed 2.8 pounds active ingredient per acre per year. Do not exceed 100 gallons of finished spray per acre. General Information: Do not spray directly on fallen nuts. During harvest period, spray immediately after gleaning nuts from the ground.
	[MAI] 0.06-0.12 (12% SC/S)	Use limited to HI. Preharvest. Broadcast. Spray to wet all foliage, do not allow runoff. Retreatment may be necessary.
	[SLN][MAI] 1.2 (12% SC/S)	SLN - Use limited to HI. Preharvest. Broadcast. Spray to wet all foliage, do not allow runoff. Retreatment may be necessary.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/05004AA	Peach	15 ppm (peach) Do not graze livestock on treated areas during application season.
	[MAI] 0.72-0.84 (12% SC/S)	Use limited to western areas of the United States. Postemergence. Broadcast, band or spot treatment. Apply in the spring when grasses are actively growing but before seed heads form. Spray grasses under peach trees. Make 1 or 2 applications per season.
	[MAI] 0.24-0.42 (12% SC/S)	Use limited to areas other than western areas of the United States. Postemergence. Broadcast, band or spot treatment. Apply in 20 gallons of water per acre in the spring when grasses are actively growing but before seed heads form. Apply up to 70 gallons of finished spray per acre. Make 1 to 2 applications per growing season.
	Pears	See Apples cluster.
/28016AA	Peas	15 ppm (peas, vines with/without pod) (peas, unshelled, shelled) 25 day preharvest interval. Fresh pea vines or pea silage may be fed to livestock but do not feed pea vine hay. General Information: Use no more than 0.5 pint of surfactant per 100 gallons of finished spray.
	[MAI] 0.12 (12% SC/S)	Postemergence. Broadcast. For control of grasses (seedling), giant foxtail, green foxtail, and yellow foxtail. Apply when peas are 2 to 6 inches tall. May be tank mixed with dinoseb.
/03008AA /03008DA	Pecans (bearing) Pecans (non-bearing)	0.1 ppm (pecans)
	[SLN][MAI] 1.2-2.4 (12% SC/S)	SLN - Use limited to AZ. Directed spray or spot treatment. For control of bermudagrass and johnsongrass. Make no more than 3 applications per year. Do not apply the final fall application closer to harvest than 2 weeks before shuck split.

DALAPON, MAGNESIUM SALT

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/05005AA /05006AA	Plum Prune	1.0 ppm (plum) 30 day preharvest interval. Do not graze livestock on treated areas during application season.
	[MAI] 0.72-0.84 (12% SC/S)	Use limited to western areas of the United States. Postemergence. Broadcast, band or spot treatment. Spray grass under trees. Apply in the spring when grasses are actively growing but before seed heads form. Make 1 to 2 applications per season.
/14013AA	Potato	10 ppm (potato) Do not graze livestock on treated areas. General Information: Do not use on land planted to or to be planted to red-skinned potato varieties or White Rose potatoes. Do not spray potato foliage.
	[MAI] 0.96 (12% SC/S)	Spring preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc and plant. Can be applied by air.
	[MAI] 1.8 (12% SC/S)	Fall preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. Can be applied by air.
	[MAI] 0.36-1.20 (12% SC/S)	Preemergence. Broadcast. Use the lower dosage to control grasses (seedling) and the higher dosage to control quackgrass. Can be applied by air. May be tank mixed with dinoseb.
	Prune	See Plum cluster.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/28019AA /28023AA	Sorghum	1.0 ppm (sorghum) 5.0 ppm (sorghum, forage) Do not graze livestock on treated areas. General Information: This treatment will not control unemerged seedling grasses.
	[MAI] 0.6-0.8 (12% SC/S)	Spring preplant. Broadcast. For control of johnsongrass (seedling). Apply when grass is 8 to 12 inches tall. Wait 3 days after application then plow or deep disc. Wait at least 5 days after plowing or discing before planting. Apply in 10 to 100 gallons of water per acre by ground or 5 to 10 gallons of water per acre by air.
/28023AA	Soybean	1.0 ppm (soybean, straw) Refer to Sorghum for pest, use and limitation information.
/28020AA	Sugar Beets	5.0 ppm (beets, sugar, root, tops) Do not graze livestock on treated areas. General Information: Do not apply when temperature is above 85 F (29.4 C). Using more than 1 pint of surfactant per 100 gallons of spray may improve grass control but also may increase the risk of crop injury. As much as 0.96 pound active ingredient per acre may be used for control of wild oats and quackgrass but also may injure sugar beet plants. The 0.6 to 0.96 pound active ingredient rate should be applied only by ground equipment and as a spray directed away from the sugar beet plants. For aerial application, use at least 5 gallons of finished spray per acre. Use of thiocarbamate herbicides may increase the risk of injury to sugar beets when applied prior to a postemergence application of dalapon, magnesium salt. Environmental conditions that cause poor growth or reduce sugar of sugar beets such as unusually cold or wet weather, drought stress, insect or disease attack, poor nutrition, or high concentrations of salts in the soil may increase risk of injury as well. Therefore, do not apply dalapon, magnesium salt postemergence to sugar beets following a preplant application of a thiocarbamate herbicide or if the crop

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Sugar Beets (continued)	is growing under adverse environmental conditions. May be tank mixed with pyrazon to control broadleaf weeds as well as grasses.
[MAI] 0.96 (12% SC/S)	Spring preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc and plant. Can be applied by air.
[MAI] 1.8 (12% SC/S)	Fall preplant. Broadcast. For control of quackgrass. Apply when grass is 4 to 6 inches tall. Wait 4 days after application then plow or deep disc. Wait 4 to 5 weeks after plowing or discing before planting. Can be applied by air.
[MAI] 0.24-0.48 (12% SC/S)	Postemergence. Broadcast. For control of grasses (seedling). Apply from sugar beet plant emergence until the 6-leaf stage. Can be applied by air. Use no more than 0.96 pound active ingredient per acre per season. Sugar beets and sugar beet tops may be fed to livestock with this application.
[MAI] 0.4-0.6 (12% SC/S)	Postemergence. Directed spray. Using leaf lifters, apply to grasses when sugar beet plants are in the 6-leaf stage until they are 14 inches tall. Do not spray sugar beet foliage. Do not apply more than 0.96 pound active ingredient per acre per season. Sugar beets and sugar beet tops may be fed to livestock with this application.
/25003AA Sugarcane	0.1 ppm (sugarcane) 5 month preharvest interval.
[MAI] 0.48 (12% SC/S)	Use limited to FL and PR. Postemergence. Directed spray. Apply in the spring before sugarcane close-in in 20 to 30 gallons of water per acre. Reapply 2 to 3 times as needed. Do not use more than 1.4 pounds active ingredient per acre per season.

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
Sugarcane (continued)	
[MAI] 1.2 (12% SC/S)	Use limited to FL and PR. Postemergence. Spot treatment. Apply before sugarcane close-in in 100 gallons of water per acre. Reapply as needed. Do not apply more than 1.4 pounds active ingredient per acre per season.
[MAI] 0.36-0.48 (12% SC/S)	Use limited to HI. Postemergence. Directed spray. Apply after planting or ratooning. Reapply 2 to 3 times as needed prior to close-in. Do not apply more than 2.4 pounds active ingredient per acre during the 24 to 36 month crop cycle.
[MAI] 1.2 (12% SC/S)	Use limited to HI. Postemergence. Spot treatment. Apply before close-in in 100 gallons of water per acre. Reapply as needed. Do not apply more than 2.4 pounds active ingredient per acre during the 24 to 36 month crop cycle.
[MAI] 0.27-0.66 (12% SC/S)	Use limited to LA. Cane stubble treatment. Broadcast. For control of bermudagrass and johnsongrass. Use the higher dosage in 10 to 100 gallons of water per acre by ground and the lower dosage in 3 to 5 gallons of water per acre by air. Reapply in 2 to 3 weeks as needed. Apply before May 20 to avoid cane injury.
[MAI] 0.12-0.28 (12% SC/S)	Use limited to LA. Cane treatment. Broadcast. For control of actively growing grasses (seedling). Use the higher dosage in 10 to 100 gallons of water per acre by ground and the lower dosage in 3 to 5 gallons of water per acre by air. Reapply in 2 to 3 weeks as needed. Apply before May 20 to avoid cane injury.
[SLN][MAI] 0.24-0.72 (12% SC/S)	SLN - Use limited to LA. Cane stubble treatment. Broadcast or band. For control of johnsongrass (rhizome). Apply in the early spring when grass is less than 14 inches tall. Apply by ground or in 3 to 5 gallons of water per acre by air.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Sugarcane (continued)	
	[SLN][MAI] 0.72 (12% SC/S)	SLN - Use limited to LA. Preplant. Broadcast or band. For control of bermudagrass, itchgrass, and johnsongrass (seedling). Apply in the spring when grass is less than 6 inches tall.
	[SLN][MAI] 0.72-0.96 (12% SC/S)	SLN - Use limited to LA. Summer preplant. Broadcast. For control of johnsongrass. Apply when grass is less than 24 inches tall but before seed heads form. Wait 7 days after application to prepare seedbeds, and 2 weeks before planting.
/03009AA	Walnuts	5.0 ppm (walnuts) 30 day preharvest interval.
	[SLN][MAI] 0.48-1.2 (12% SC/S)	SLN - Use limited to CA. Directed spray. Apply before annual and perennial grasses reach the boot stage. Use the lower dosage for control of annual grasses and the higher dosage for control of perennial grasses. Apply when grasses are one-fourth to one-third of their mature height, but before boot stage.
	TERRESTRIAL NONFOOD CROP	
	(Agricultural Crops)	
/66002DA	Fallowland (grain stubble)	Do not graze livestock on treated areas. General Information: This treatment will not control unemerged seedling grasses. Do not use on land planted to or to be planted to red-skinned potato varieties or White Rose potatoes.
	[MAI] 0.6-0.8 (12% SC/S)	Preplant. Broadcast. For control of established bermudagrass, johnsongrass and quackgrass. Apply during the growing season prior to planting beans, corn, cotton, potatoes, sorghum, soybean, and sugar beets. Make 2 to 3 applications 2 to 3 weeks apart. Can be applied by air.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Fallowland (grain stubble) (continued)	
	[SLN][MAI] 0.36-0.48 (12% SC/S)	SLN - Use limited to ID and OR. Broadcast to summer fallowland to be planted to winter wheat. Tank mix with atrazine or cyanazine. Apply to stubble following fall rains after weeds begin to grow but before April 1. Apply once per year. Do not plant spring cereal crops.
	[SLN][MAI] 0.6 (12% SC/S)	SLN - Use limited to WA. Broadcast to summer fallowland to be planted to cereal crops. Apply in the late fall or winter after weeds begin to grow but before April 1. Apply once per year. Do not plant cereal crops until the late summer following treatment. May be tank mixed with atrazine. Mixtures with atrazine should be applied before January 1.
/28035AA /38045AA	Pastureland Rangeland	10 ppm (grasses, pasture) (grasses, range) When less than 10 percent of the pasture area is treated, livestock grazing need not be discontinued. For unmowed pastures. Do not graze meat animals on treated pastures until 8 weeks after treatment and withhold grazing on treated areas for 1 week before slaughter. Do not graze lactating dairy animals on treated pastures until 14 weeks after treatment. For mowed pastures. Mow 2 to 4 weeks after treatment if desired. Do not graze lactating or meat animals on treated pastures until 4 weeks after mowing. Do not harvest hay from treated pastures during the season of application. General Information: Pasturelands include established perennial grasses such as pangolagrass, bermudagrass, bahiagrass, dallisgrass and fescue. Pastures recover most rapidly if mowed, are adequately fertilized, ample moisture is made available, and other good management practices are followed. Desirable perennial pasture (such as white clover) may be temporarily reduced in stand or vigor but spring treated pastures usually recover within 2 to 4 months under favorable conditions. Fall

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Pastureland cluster (continued)	
		treated pastures usually recover the following spring under good management and favorable conditions. Any annual grasses present may be seriously injured or killed. Use only the lower rate on bahiagrass pastures since it is more sensitive and may suffer considerable reduction under unfavorable conditions. Do not sow grass seed until 2 to 4 weeks after treatment. Species such as annual ryegrass can be fall seeded to provide winter pasture. Delay grazing for 10 weeks or longer after treatment allowing adequate time for sufficient growth to sustain grazing.
	[MAI] 0.48-0.72 (12% SC/S)	Use limited to GA, HI, SC and the Gulf Coast States. Broadcast. For control of smutgrass. Can be applied by air.
	[MAI] 0.72 (12% SC/S)	Spot treatment. For control of smutgrass. Apply in 100 gallons of water to thoroughly wet smutgrass foliage.
	(Ornamental Plants and Forest Trees)	
/33019AA	Bluegrass (lawns)	
	[MAI] 0.13 lb a.i./ 5,000 sq.ft (12% SC/S)	Spot treatment. For control of tall fescue. Spray to wet all foliage, do not allow runoff. Repeat as necessary.
/30005AA /30002AA	Christmas Tree Plantations	
	[MAI] 0.48-1.8 (12% SC/S)	Preplant. Broadcast. Use the lower dosage to control grasses (seedling) and the higher dosage to control perennial grasses. If applying more than 0.96 pound active ingredient per acre, wait at least 2 weeks after application before planting forest seedlings. Can be applied by air. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Christmas Tree Plantations (continued)	
	[SLN][MAI] 0.36-0.72 (12% SC/S)	SLN - Use limited to ID, MT, OR and WA. Broadcast. Apply after planting or to existing stands. Tank mix with atrazine. Apply in 10 to 40 gallons of water per acre by ground or by air. May be applied in the fall after conifers harden off until 3 weeks before conifers break bud. Do not apply over conifers without tank mixing with atrazine. May be tank mixed with 2,4-D esters. Do not apply the 2,4-D esters tank mix to pine trees. Do not use within 12 months of Christmas tree harvest.
	[SLN][MAI] 0.48-0.96 (12% SC/S)	SLN - Use limited to ID, MT and OR. Directed spray. Apply in 10 to 40 gallons of water per acre. May be tank mixed with atrazine or 2,4-D esters.
/33028AA	Dichondra (ground cover)	General Information: Applications to English Ivy are limited to CA. Apply to mature dichondra. Do not use on newly seeded or newly transplanted areas. If areas have not been fertilized, apply fertilizer and water thoroughly 5 to 7 days before application. Use a sprayer with an insecticide nozzle to produce a fine mist.
/33030AA	English Ivy (ground cover)	
	[MAI] 0.075 lb a.i./ 5,000 sq.ft (12% SC/S)	Broadcast or spot treatment. For control of annual bluegrass, bermudagrass and crabgrass. Apply in the spring or summer when weed grasses are actively growing.
/33010AA	Ornamental Lawns	General Information: Mow dead vegetation before treatment.
	[MAI] 0.3 lb a.i./5,000 sq.ft (12% SC/S)	Use limited to AZ and CA. Lawn renovation treatment. Broadcast. Wait 2 weeks for new grass growth then apply in 20 gallons of water per 5,000 square feet. After 2 to 3 weeks water grass at least 15 minutes a day for 1 week. Wait 4 to 6 weeks to seed, plug, or sprig.

EPA Compendium of Acceptable Uses

DALAPON, MAGNESIUM SALT

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
(Noncrop, Wide Area, and General Indoor/Outdoor Treatments)	
/67000DA Noncrop Areas	Do not use around small shrubs, newly planted trees, or trees less than 4 years old. General Information: Noncrop Areas include areas around railroad ballast, rights-of-way, and berm areas, tennis courts, fencerows, walkways, driveways, industrial sites, service stations, and other noncrop areas. May be applied by ground or, where feasible, by air.
[MAI] 0.48-3.6 (12% SC/S)	Broadcast. Use the lower dosage for control of annual grasses and the higher dosage for control of perennial grasses and cattails. Apply when weeds are actively growing but before seed heads form.
[MAI] 0.3 lb a.i./5,000 sq.ft (12% SC/S)	Broadcast or spot treatment. Apply with a sprayer, sprinkler can or hose proportioner to wet weeds without runoff.
[MAI] 1.6-3.6 (12% SC/S)	Broadcast. For control of perennial grasses and cattails. Use at least 100 gallons of finished spray per acre with a spray boom or up to 300 gallons of finished spray with a hand gun. Apply when cattails are 2 to 3 feet tall or during catkin development. Retreatment may be necessary. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
[MAI] 0.48-1.2 (12% SC/S)	Broadcast. For control of annual grasses. Apply when grasses are actively growing but before seed heads form. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
[MAI] 0.02 lb a.i./gal of water (12% SC/S)	Broadcast. For control of cattails and phragmites. Apply in the spring after all shoots have emerged and are 2 to 3 feet tall. A fall treatment to cattails during catkin development may also be applied. May be tank mixed with 2,4-D or silvex.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	Noncrop Areas (continued)	
	[MAI] 1.62 (12% SC/S)	Spot treatment. Apply in 100 gallons of water and spray to wet all foliage, do not allow runoff. Repeat as needed. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
	AQUATIC FOOD CROP	
	(Agricultural Crops)	
/14006MB	Taro (paddy banks)	Tolerance Not Located. Do not apply less than 7 days before planting. General Information: Do not allow treated water to drain into adjacent paddies or waterways.
	[SLN][MAI] 1.8 (12% SC/S)	SLN - Use limited to HI. Preplant. For control of cattails. Use 100 gallons of finished spray per acre with a spray boom, or 300 gallons of finished spray per acre with a hand-gun sprayer. Apply when cattails are 2 to 3 feet tall or during catkin development. Reapply as needed.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
	AQUATIC NONFOOD CROP	
	(Aquatic Sites)	
/65013MB /65012MB	Drainage Ditches Industrial Waste Disposal Systems	Do not use in or around potable water or irrigation water sources. General Information: Industrial waste disposal systems include areas around waste water treatment systems, and phosphate ponds/pits.
	[MAI] 1.6-3.6 (12% SC/S)	Broadcast. For control of perennial grasses and cattails. Use at least 100 gallons of finished spray per acre with a spray boom or up to 300 gallons of finished spray with a hand gun. Apply when cattails are 2 to 3 feet tall or during catkin development. Retreatment may be necessary. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
	[MAI] 0.48-1.2 (12% SC/S)	Broadcast. For control of annual grasses. Apply when grasses are actively growing but before seed heads form. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
	[MAI] 1.62 (12% SC/S)	Spot treatment. Apply in 100 gallons of water and spray to wet all foliage, do not allow runoff. Repeat as needed. May be tank mixed with 2,4-D esters; 2,4-D alkanolamine salt; 2,4,5-T esters; or triclopyr, triethylamine salt.
	[SLN][MAI] 1.6-3.6 (12% SC/S)	SLN - Use limited to FL. For control of cattails and perennial grasses. Apply in 50 gallons of water per acre by ground or by airboat, or 10 to 20 gallons of water per acre by air. For control of cattails, apply before or during catkin development. Retreat as needed.

	Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations
/65021MB	Irrigation Ditchbanks	Do not permit fishing in treated waterways within 12 months of treatment. General Information: Always begin spraying at the downstream end of section to be treated and work upstream. Do not spray across stream, thereby minimizing spray contact to water surface. Do not spray both banks simultaneously. Do not spray more than 2 miles of the same ditchbank carrying less than 50 cubic feet of water per second during any 24 hour period.
	[MAI] 0.02 lb a.i./gal of water (12% SC/S)	Broadcast. For control of cattails and phragmites. Apply in the spring after all shoots have emerged and are 2 to 3 feet tall. A fall treatment to cattails during catkin development may also be applied. May be tank mixed with 2,4-D or silvex.
	[MAI] 1.6 (12% SC/S)	Use limited to the western United States. Broadcast. Using a spray boom, apply 100 gallons of finished spray per acre. If browning or dieback does not occur within 3 to 6 weeks, retreatment may be necessary. No waiting period is necessary before water may be used for irrigation purposes.
	[MAI] 1.6 (12% SC/S)	Use limited to the western United States. Spot treatment. Using a hand spray gun, apply 100 gallons of finished spray per acre to control intermittent infestation. Spray to wet all foliage, do not allow runoff.

FORESTRY

General Warnings and Limitations: ENDANGERED SPECIES RESTRICTION. Contact the Endangered Species Specialist in the nearest Regional/Field Office of the U.S. Fish and Wildlife Service.

/30002AA	Forest Planting Sites (conifers)	Refer to TERRESTRIAL NONFOOD CROP, (Ornamental Plants and Forest Trees), Christmas Tree Plantations for pest and use information.

Site, Dosage and Formulation (lb a.i./A)	Tolerance, Use, Limitations

AERIAL AND TANK MIX APPLICATIONS

9001500
AAAAAAA
Aerial Application

--

Refer to

TERRESTRIAL FOOD CROP
(Agricultural Crops)
Beans, Citrus Fruit, Corn, Cotton, Flax, Potato, Sorghum, Soybean, Sugar Beet, Sugarcane

TERRESTRIAL NONFOOD CROP
(Agricultural Crops)
Fallowland, Pastureland, Rangeland
(Ornamental Plants and Forest Trees)
Christmas Tree Plantations
(Noncrop, Wide Area, and General Indoor/Outdoor Treatments)
Noncrop Areas

FORESTRY
Forest Planting Sites (conifers)

9900300
AAAAAAA
Tank Mix

--

Refer to

TERRESTRIAL FOOD CROP
(Agricultural Crops)
Flax, Peas, Potato, Sugar Beet

TERRESTRIAL NONFOOD CROP
(Agricultural Crops)
Fallowland
(Ornamental Plants and Forest Trees)
Christmas Tree Plantations
(Noncrop, Wide Area, and General Indoor/Outdoor Treatments)
Noncrop Areas

AQUATIC NONFOOD CROP
(Aquatic Sites)
Drainage Ditches, Industrial Waste System Disposals, Irrigation Drainage Ditches

FORESTRY
Forest Planting Sites (conifers)

DALAPON, MAGNESIUM SALT

Listing of Registered Pesticide Products by Formulation

8012.0015 12% soluble concentrate/solid

dalapon, magnesium salt (028903) plus dalapon, sodium salt (028902)

000464-00402 000464-00473 000829-00233 003442-00814

(000464-00402) AZ770034 CA790148 FL820002 HI790003
HI790014 HI790022 ID800018 ID800032
LA810044 LA840006 MI790016 MS810044
MT820003 OR790058 OR790066 PR800003
SC770006 WA790075 WA810101

9999999 State Label Registrations

AL Reg. No.
000464-06894 000464-06895

CA Reg. No.
000464-06890 000464-06891 000464-06892 000464-06893

FL Reg. No.
000464-06887 000464-06889

GA Reg. No.
000464-06885 000464-06886

HI Reg. No.
000464-06883 000464-06884

LA Reg. No.
000464-06879 000464-06880 000464-06881

MS Reg. No.
000464-06877 000464-06878

NM Reg. No.
000464-06876

OK Reg. No.
000464-06875

OR Reg. No.
000464-06874

SC Reg. No.
000464-06873

TX Reg. No.
000464-06871 000464-06872

Listing of Registered Pesticide Products by Formulation (continued)

WA Reg. No.
000468-06870

DALAPON, MAGNESIUM SALT

Appendix A-1

Listing of Active Ingredient(s) Found in Combination with the Report Chemical

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
028902	dalapon, sodium salt	--

-- Use Common Name

DALAPON, MAGNESIUM SALT

Appendix A-2

Listing of Active Ingredient(s) Which May Be Included in Tank Mixes

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
080803	atrazine	--
100101	cyanazine (ISO)	2-[[4-chloro-6-(ethylamino)-S-triazin-2-yl]-amino]-2-methyl propionitrile
028902	dalapon, sodium salt	--
030001	2,4-D	2,4-dichlorophenoxyacetic acid
030010	2,4-D, alkanolamine salt	2,4-dichlorophenoxyacetic acid, alkanolamine salt (of the ethanol and isopropanol series)
030053	2,4-D esters*	2,4-dichlorophenoxyacetic acid, 2-butoxyethyl ester
030056	2,4-D esters*	2,4-dichlorophenoxyacetic acid, butyl ester
030063	2,4-D esters*	2,4-dichlorophenoxyacetic acid, isooctyl ester
030072	2,4-D esters*	2,4-dichlorophenoxyacetic acid, propylene glycol butyl ether ester
037505	DNBP	dinoseb
030501	MCPA	2-methyl-4-chlorophenoxyacetic acid
069601	pyrazon	--
082501	silvex	--
082072	2,4,5-T esters*	2,4,5-trichlorophenoxyacetic acid, 2-butoxyethyl ester

Appendix A-2

Listing of Active Ingredient(s) Which May Be Included in Tank Mixes (continued)

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
116002	triclopyr, triethylamine salt	--

-- Use Common Name
*These names and chemicals are not being included in the 'master' Appendix A.

APPENDIX IV

BIBLIOGRAPHY

GUIDE TO USE OF THIS BIBLIOGRAPHY

1. CONTENT OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Standard. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, will be included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study." In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review, and can be described with a conventional bibliographic citation. The Agency has attempted also to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by "Master Record Identifier," or MRID, number. This number is unique to the citation, and should be used at any time specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies; see paragraph 4(d)(4) below for a further explanation. In a few cases, entries added to the bibliography late in the review may be preceded by a nine-character temporary identifier. These entries are listed after all MRID entries. This temporary identifier number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standards of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

a. Author. Whenever the Agency could confidently identify one, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as author. As a last resort, the Agency has shown the first submitter as author.

b. Document Date. When the date appears as four digits with no question marks, the Agency took it directly from the document. When a four-digit date is followed by a question mark, the bibliographer deduced the date from evidence in the document. When the date appears as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing Parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

    (1) Submission Date. The date of the earliest known submission appears immediately following the word "received."

    (2) Administrative Number. The next element, immediately following the word "under," is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

    (3) Submitter. The third element is the submitter, following the phrase "submitted by." When authorship is defaulted to the submitter, this element is omitted.

    (4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," standing for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume. For example, within accession number 123456, the first study would be 123456-A; the second, 123456-B; the 26th, 123456-Z; and the 27th, 123456-AA.

OFFICE OF PESTICIDE PROGRAMS
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00022923	Hill, E.F.; Heath, R.G.; Spann, J.W.; et al. (1975) Lethal Dietary Toxicities of Environmental Pollutants to Birds: Special Scientific Report--Wildlife No. 191. (U.S. Dept. of the Interior, Fish and Wildlife Service, Patuxent Wildlife Research Center; unpublished report)
00026686	Day, B.E.; Jolliffe, V.A.; Getzendaner, M.E. (1968) A Study of Residues of Dalapon in Three Varieties of Citrus Fruit. (Unpublished study received Nov 15, 1972 under 3F1313; prepared in cooperation with Univ. of California--Riverside, Agricultural Experiment Station, Dept. of Horticultural Science, submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:092243-K)
00031171	Gentry, W.M.; Regan, J.B.; Kutschinski, A.H.; et al. (1970) Comparison of Residues of Dalapon in Various Crops after Treatment with Dowpon and Dowpon M Herbicides. Includes method ACR 64.5 dated Nov 6, 1964. (Unpublished study received Jan 26, 1971 under 464-402; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:003629-F)
00033758	Getzendaner, M.E.; Wright, W.G.; Parochetti, J.V.; et al. (1973) A Residue Study: Dalapon in Small Grains from Application of Dowpon"(R)† M Grass Killer to Fallow Fields before Planting. (Unpublished study received Jan 7, 1980 under 464-402; submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:241735-C)
00035252	Getzendaner, M.E.; Herman, J.L.; McCurdy, E.V.; et al. (1968) A Residue Study: Dalapon in Barley, Oats and Wheat from Broadcast Spray with Dowpon Herbicide. (Unpublished study received Jul 1, 1977 under 464-402; prepared in cooperation with Canada, Dept. of Agriculture, submitted by Dow Chemical U.S.A., Midland, Mich.; CDL:096217-C)
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00072132	Swanson, C.R. (1965) Metabolic Fate of Herbicides in Plants. ?: U.S. Agricultural Research Service, Crops Research. (ARS 34-66; published study; CDL:091454-H)
00072134	Dow Chemical Company (1968) Residue of Dowpon on Various Crops. (Compilation; unpublished study received Oct 13, 1969 under 9F0842; CDL:091454-J)
00072139	Dow Chemical Company (1961) A Study of Residues of Dalapon in Several Crops Resulting from Preplant Application of Dowpon. (Compilation; unpublished study received Oct 13, 1969 under 9F0842; CDL:091454-O)
00083177	Dow Chemical Company (1957) Dalapon Residues--Various Crops. (Compilation; unpublished study received Dec 30, 1957 under PP0158; CDL:092435-E)
00083234	Dow Chemical Company (1962) A Study of Residues of Dalapon in Bananas Receiving Dowpon Treatments. (Unpublished study received Aug 16, 1963 under PP0396; CDL:090428-B)
00088356	Dow Chemical U.S.A. (1974) Dalapon Residues in Grasses from Pastures Treated with Dowpon M Grass Killer. (Compilation; unpublished study, including GH-C 771 and GH-C 738, received Aug 8, 1975 under 464-402; CDL:220408-B)
00089349	Dow Chemical Company (1959) A Study of Residues of Dalapon in Cranberries from Plots Treated with Dowpon. (Unpublished study received on unknown date under PP0221; CDL:090249-A)
00089350	Dow Chemical Company (1958) A Study of Residues of Dalapon in Citrus Fruit following Field Applications of Dowpon. (Unpublished study received Apr 15, 1959 under PP0221; CDL: 090249-B)
00089351	Dow Chemical Company (1959) A Study of Residues of Dalapon in Hawaiian Coffee following Field Applications of Dowpon. (Unpublished study received Apr 15, 1959 under PP0221; CDL: 090249-C)

MRID	CITATION
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00089353	Dow Chemical Company (1959) A Study of Residues of Dalapon in Peaches and Plums following Field Application of Dowpon in the Midwestern and Southeastern United States. (Unpublished study received Apr 15, 1959 under PP0221; CDL:090249-E)
00089361	Dow Chemical Company (1959) Residues of Dalapon in Peas following Post Emergence Dowpon Applications. (Unpublished study received Dec 10, 1959 under PP0242; CDL:090269-A)
00089810	Dow Chemical Corporation (1956) The Analysis of Asparagus for Residues of Dalapon. (Unpublished study received Apr 5, 1957 under PP0133; CDL:090163-B)
00090120	Dow Chemical Company (1962) Residues Remaining, Including a Description of the Analytical Methods: Dalapon. (Compilation; unpublished study received Dec 30, 1962 under Pp0398; CDL: 090430-A)
00090141	Dow Chemical Company (1962) Residues of Dalapon in Corn. (Compilation; unpublished study received on unknown date under PP0380; CDL:090410-B)
00108929	Dow Chemical Co. (1956) The Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Method Used: Dalapon. (Unpublished study received Dec 12, 1956 under PP0113; CDL:090142-A)
00108948	Dow Chemical Co. (1956) The Results of Tests on the Amount of Residue Remaining, Including Descriptions of Analytical Methods Used: Dalapon. (Compilation; unpublished study received Sep 21, 1956 under PP0099; CDL:090129-A)
00114803	Dow Chemical U.S.A. (1968) Residue: Dowpon. (Compilation; unpublished study received Sep 17, 1968 under 464-164; CDL: 003446-B)
00114804	Dow Chemical U.S.A. (1969) Dalapon Residue Levels and Persistence in Irrigation Water. (Compilation; unpublished study received Jan 16, 1970 under 464-164; CDL:003449-A)
00114808	Dow Chemical Co. (1969) Analyses for Residues of Dalapon in Various Products. (Compilation; unpublished study received Oct 13, 1969 under 9F0842; CDL:091453-A)

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00114815	Dow Chemical Co. (1960) A Study of Residues of Dalapon in Citrus Fruit from Florida following Field Applications of Dowpon. (Compilation; unpublished study received Feb 20, 1961 under PP0268; CDL:092546-A)
00114820	Gee, F. (1975) Letter sent to B. Puma dated Mar 5, 1975: Method tryout for dalapon in milk. (U.S. Environmental Protection Agency, Chemistry Branch, RD; unpublished study; CDL:093545-A)
00114822	U.S. Dept. of the Interior (1972?) The Results of Tests on the Amount of Residue Remaining, Including a Description of the Analytical Method Used: Dalapon. (Compilation; unpublished study received Apr 7, 1973 under 3E1385; CDL:093696-A)
00114825	Dow Chemical Co. (1970) Analyses for Residues of Dalapon in Various Products. (Compilation; unpublished study received Sep 20, 1972 under 3F1313; CDL:094297-B)
00114842	Dow Chemical U.S.A. (1972) Analyses for Residues of Dalapon in Various Products. (Compilation; unpublished study received Mar 18, 1976 under 464-402; CDL:095211-H)
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00114895	Schumacher, R.; Raines, R. (1975) Dalapon Residues in Crops. (U.S. Agricultural Research Service, Denver Federal Center; unpublished study; CDL:097776-A)
00114896	Dow Chemical Co. (1955) Residues Remaining, Including a Description of the Analytical Method: Dalapon. (Compilation; unpublished study received on unknown date under PP0095; CDL:098719-A)

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00114913 Luce, E. (1959) Report: Dalapon--Potatoes: AL No. E 3221. (Unpublished study received Apr 22, 1960 under unknown admin. no.; submitted by Dow Chemical U.S.A., Midland, MI; CDL:122131-A)

00114915 Blanchard, F.; Muelder, W.; Smith, G. (1960) Synthesis of carbon-14-labeled dalapon and trial applications to soybean and corn plants. Agricultural and Food Chemistry 8(2):124-128. (Also in unpublished submission received Apr 1, 1960 under unknown admin. no.; submitted by Dow Chemical U.S.A., Midland, MI; CDL:122132-A)

00114916 Demoranville, I. (1962) Determination of Dalapon Residues in Cranberries. (Unpublished study received Jun 15, 1962 under 464-164; prepared by Univ. of Massachusetts, submitted by Dow Chemical U.S.A., Midland, MI; CDL:223804-A)

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00125105 Dow Chemical U.S.A. (1961) Residues: Dalapon. (Compilation; unpublished study received Feb 3, 1960? under PP0241; CDL: 092518-A)

00125549 Dow Chemical U.S.A. (1963) Dalapon Residues in Various Crops. (Compilation; unpublished study received Dec 26, 1962; Dec 27, 1962 under PP0380; CDL:092666-A)

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00127213 Dow Chemical U.S.A. (1962) Residues of 2,2-D in Lima Beans and Other Crops. (Compilation; unpublished study received Dec 30, 1962 under PP0398; CDL:092685-A)

00144023 Young, C.; Gorzinski, S.; Johnson, K. (1983) DOWPON M: 2-Year Dietary Chronic Toxicity-Oncogenicity Study with B6C3F1 Mice: Final Report. Unpublished study prepared by Dow Chemical U.S.A. 1363 p.

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MRID	CITATION
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40219801	U.S. EPA (1976) Report on the Toxicity of Sodium Salt of Dalapon 72.5% and Magnesium salt of Dalapon 12% Active Ingredient to Bluegill: Static Jar Test 929. Unpublished study prepared by Animal Biology Laboratory, Beltsville, Maryland.
40219802	U.S. EPA (1976) Report on the Toxicity of Sodium Salt of Dalapon 72.5% and Magnesium salt of Dalapon 12% Active Ingredient to Rainbow Trout: Static Jar Test 934. Unpublished study Prepared by Animal Biology Laboratory, Beltsville, Maryland.
40219901	Schumacher, R.; Bartley, T.; et. al. (1975) Dalapon Residues in Crops and Irrigation Water. Unpublished study prepared by USDI, Bureau of Reclamation, Denver, Colorado. 31 p.

APPENDIX V

FORMS

OMB Approval No. 2000-0468

FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET	EPA REGISTRATION NO.
PRODUCT NAME	
APPLICANT'S NAME	DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

REGISTRANT'S AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE

EPA Form 8580-1 (10-82)

OMB Approval No. 2000-0468

(To qualify, certify ALL four items)

CERTIFICATION OF ATTEMPT TO ENTER INTO AN AGREEMENT WITH OTHER REGISTRANTS FOR DEVELOPMENT OF DATA

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:

GUIDANCE DOCUMENT DATE

ACTIVE INGREDIENT

NAME OF FIRM	EPA COMPANY NUMBER

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

NAME OF FIRM	DATE OF OFFER

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) above have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly inform me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This statement does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

TYPED NAME	SIGNATURE	DATE

EPA Form 8580-6 (10-82)

PRODUCT SPECIFIC DATA REPORT

EPA Reg. No.________________________ Date ________________________

Guidance Document for ____

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by		(For EPA Use Only) MRID Numbers Assigned
			Citing MRID Number or EPA Accession Number	Submitting Data (Attached)	
§158.120 PRODUCT CHEMISTRY					
61-1	Identity of ingredients				
61-2	Statement of composition				
61-3	Discussion of formation of ingredients				
62-1	Preliminary analysis				
62-2	Certification of limits				
62-3	Analytical methos for enforce limits				
63-2	Color				
63-3	Physical state				
63-4	Odor				
63-5	Melting point				
63-6	Boiling point				
63-7	Density, bulk-density, or specific gravity				
63-8	Solubility				
63-9	Vapor pressure				
63-10	Dissociation constant				
63-11	Octanol/water partition coefficient				
63-12	pH				

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by Citing MRID Number or EPA Accession Number	I am complying with data requirements by Submitting Data (Attached)	(For EPA Use Only) MRID Numbers Assigned
63-13	Stability				
63-14	Oxidizing/reducing reaction				
63-15	Flammability				
63-16	Explodability				
63-17	Storage stability				
63-18	Viscosity				
63-19	Miscibility				
63-20	Corrosion characteristics				
63-21	Dielectric breakdown voltage				
§158.135 TOXICOLOGY					
81-1	Acute oral toxicity, rat				
81-2	Acute dermal toxicity, rabbit				
81-3	Acute inhalation, toxicity, rat				
81-4	Primary eye irritation, rabbit				
81-5	Primary dermal irritation				
81-6	Dermal sensitization				

OMB Approval No. 2070-0057
Expiration Date 11/30/89

"GENERIC" DATA EXEMPTION STATEMENT

EPA Product Registration Number: ______________

Registrant's Name and Address: ______________

____

As an authorized representative of the registrant of the product identified above, I certify that:

(1) I have read and am familiar with the terms of the Notice from EPA dated __________ concerning a requirement for submission of "generic" data on the active ingredient ____________ named under FIFRA Section 3(c)(2)(B).

(2) My firm requests that EPA not suspend the registration of our product, despite our lack of intent to submit the generic data in question, on the grounds that the product contains the active ingredient solely as the result of the incorporation into the product of another product which contains that active ingredient, which is registered under FIFRA Section 3, and which is purchased by us from another producer.

(3) An accurate Confidental Statement of Formula(CSF) for the above-identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the subject active ingredient in my firm's product, or

The CSF dated ________ on file with EPA is complete, current and accurate and contains the information requested on the current CSF Form No. 8570-4. The registered source(s) of the above named active ingredient in my product(s) is/are ______________ and their registration number(s) is/are ____________ .

My firm will apply for an amendment to the registration prior to changing the source of the active ingredient in our product.

(4) I understand, and agree on behalf of my firm, that if at any time any portion of this Statement is no longer true, or if my firm fails to comply with the undertakings made in this Statement, my firm's product's registration may be suspended under FIFRA Section 3(c)(2)(B).

(5) I further understand that if my firm is granted a generic data exemption for the product, my firm relies on the efforts of other persons to provide the Agency with the required generic data. If the registrant(s) who have committed to generate and submit the required data fail to take appropriate steps to meet requirements or are no longer in compliance with this Notice's data requirements, the Agency will consider that both they and my firm are not in compliance and will normally initiate proceedings to suspend the registrations of my firm's product(s) and their product(s), unless my firm commits to submit and submits the required data in the specified time frame. I understand that, in such cases, the Agency generally will not grant a time extension for submitting the data.

Registrant's authorized representative: ______________________
(Signature)

Dated: ______________ ______________________
(Typed)

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